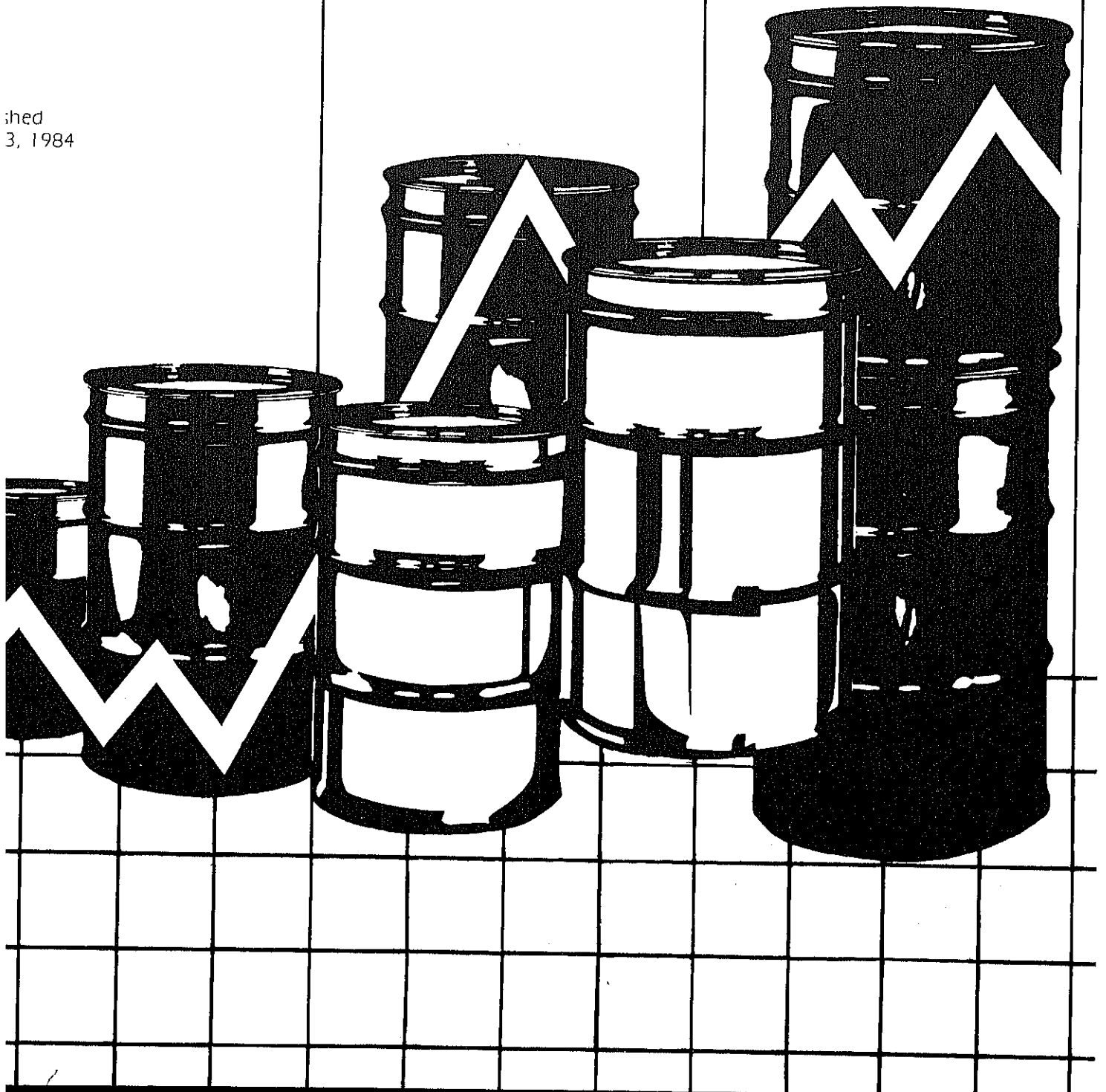


# Weekly Petroleum Status Report



for Week Ended:  
April 27, 1984

Released  
May 3, 1984



Weekly Petroleum Status Report (WPSR) provides daily information on the petroleum supply situation in the context of historical information, selected statistics, and forecasts. The WPSR is intended to provide up-to-date information to the industry, the press, planners, policymakers, consumers, analysts, State and local governments. It is published every Thursday by the Energy Information Administration. The data contained in this report are based on company submissions for the week ending on the preceding Friday.

This publication is available on an annual subscription basis from the Superintendent of Documents, U.S. Government Printing Office (GPO). For ordering information and purchase of this and other Energy Information Administration (EIA) publications, contact the GPO or the EIA's National Energy Information Center (NEIC).

Questions on energy statistics should be addressed to the NEIC. Addresses and telephone numbers appear below.

National Energy Information Center, EI-20  
Energy Information Administration  
Residential Building  
Room 1F-048  
Washington, D.C. 20585  
(202) 252-8800

Superintendent of Documents  
U.S. Government Printing Office  
Washington, D.C. 20402  
(202) 783-3238

This report was prepared by the Energy Information Administration, the independent statistical and analytical agency within the Department of Energy. The information contained herein should not be construed as advocating or necessarily reflecting any official position of the Department of Energy or any other organization.

## CONTENTS

Highlights.....	1
U.S. Petroleum Balance Sheet.....	3
<b>Refinery Activity</b>	
Inputs, Utilization, and Production .....	4
Inputs, Utilization, and Production (Graphs).....	5
<b>Stocks</b>	
Crude Oil and Petroleum Products, U.S. Totals.....	6
Crude Oil and Petroleum Products (Graphs).....	7
Motor Gasoline by Petroleum	
Administration for Defense District.....	8
Motor Gasoline (Graphs).....	9
Distillate Fuel Oil by Petroleum	
Administration for Defense District.....	10
Distillate Fuel Oil (Graphs).....	11
Residual Fuel Oil by Petroleum	
Administration for Defense District.....	12
Residual Fuel Oil (Graphs) .....	13
<b>Imports</b>	
Imports of Crude Oil and Petroleum Products.....	14
Imports of Crude Oil and Petroleum	
Products (Graphs).....	15
<b>Products Supplied</b>	
Petroleum Products Supplied .....	16
<b>Prices</b>	
Refiner Acquisition Cost of Crude Oil.....	17
Average Retail Selling Prices,	
Motor Gasoline and Residential Heating Oil.....	17
World Crude Oil Prices.....	18
World Crude Oil Prices (Graph).....	19
Spot Market Product Prices.....	20
Spot Market Product Prices (Graphs).....	21
<b>Weather</b>	
Weather Summary .....	22
<b>Other Fuels</b>	
Natural Gas in Underground Storage .....	23
<b>Appendixes:</b>	
A. EIA Weekly Data: Survey Design and Estimation	
Methods.....	24
B. Interpretation and Derivation of Average	
Inventory Levels.....	26
C. Projection of Products Supplied from the	
Short-Term Energy Outlook.....	27
D. Changes in Weekly Petroleum Status Report	
Series.....	28
E. Calculation of World Oil Prices.....	29
Glossary.....	30
Sources.....	32

## HIGHLIGHTS

### Refinery Activity

Crude oil input to refineries averaged 11.9 million barrels per day for the four weeks ending April 27, 1984. Refinery capacity utilization averaged 74.7 percent during the period. During the four weeks ending April 27, 1984, motor gasoline production averaged 6.6 million barrels per day, and distillate fuel oil production averaged 4.4 million barrels a day.

### Stocks

As of April 27, 1984, stocks of crude oil (excluding the Strategic Petroleum Reserve) stood at 341.5 million barrels, which is about 6 percent below the level one year ago. Stocks of total motor gasoline, at 245.0 million barrels, are 11 percent above the level one year ago. Distillate fuel oil stocks stood at 99.2 million barrels, which is about 6 percent below the level one year ago. Stocks of residual fuel oil stood at 43.5 million barrels, which is about 7 percent below the level one year ago.

### Imports

Total imports of crude oil (including imports for the Strategic Petroleum Reserve) and petroleum products together averaged 4.4 million barrels a day for the four weeks ending April 27, 1984, about 13 percent above the average a year ago. Gross imports of crude oil (excluding the Strategic Petroleum Reserve) averaged 3.3 million barrels a day for the four-week period ending April 27, 1984.

### Products Supplied

Total petroleum products supplied averaged 15.2 million barrels a day for the four-week period ending April 27, 1984, which is about 3 percent above the rate supplied a year ago. Motor gasoline was supplied at a rate of 6.7 million barrels a day, which is about 3 percent above the rate supplied a year ago. Distillate fuel oil was supplied at a rate of 3.0 million barrels a day, about 11 percent above the rate supplied a year ago.

### World Crude Oil Price

The estimated weighted average international price of crude oil as of April 30, 1984, remains at \$28.62 a barrel.

### Spot Market Product Price

For the week ending April 27, 1984, the average spot market price of 98 octane gasoline on the Rotterdam market increased 17 cents to \$32.36 a barrel; the gasoil price decreased 7 cents to \$32.84 a barrel, and the price of residual fuel oil remained unchanged at \$27.85 a barrel. On the New York market, the average spot price of 89 octane regular gasoline decreased 35 cents to \$33.73 a barrel; the price of No. 2 heating oil decreased 10 cents to \$36.02 a barrel, and the residual fuel oil price remained unchanged for the third consecutive week at \$29.40 a barrel.



# 5. PETROLEUM BALANCE SHEET

Petroleum Supply (thousand Barrels per Day)	Four Week Averages For Period Ending		Percent Change	Cumulative Daily Averages 117 Days		Percent Change
	04/27/84	04/27/83		1984	1983	
<b>Crude Oil Supply</b>						
1) Domestic Production <sup>1</sup>						
2) Net Imports (Including SPR) <sup>2</sup>	E8,690	8,685	0.1	E8,698	8,663	0.4
3) Gross Imports (Excluding SPR)	3,259	2,994	8.8	3,084	2,476	24.6
4) SPR Imports	3,279	2,883	13.7	3,092	2,431	27.2
5) Exports	149	205	--	149	206	--
6) SPR Stocks Withdrawn (+) or Added (-)	E169	94	79.5	E157	161	-2.1
7) Other Stocks Withdrawn (+) or Added (-)	-149	-196	--	-144	-199	--
8) Products Supplied and Losses	-331	-206	--	14	-128	--
9) Unaccounted-for Crude	E-66	-70	--	E-66	-67	--
	510	187	--	311	244	--
10) Crude Oil Input to Refineries	11,913	11,394	4.6	11,897	10,989	8.3
<b>Product Supply</b>						
11) NGL Production	E1,607	1,505	6.8	E1,595	1,578	1.1
12) Other Hydrocarbon Input and Alcohol Input	E47	41	14.0	E45	47	-3.6
13) Crude Oil Product Supplied	E65	68	-5.3	E65	65	-0.4
14) Processing Gain	566	434	30.5	552	459	20.3
15) Net Product Imports <sup>3</sup>	1,103	862	27.9	1,607	753	113.3
16) Gross Product Imports <sup>3</sup>	1,512	1,576	-4.1	2,035	1,457	39.7
17) Product Exports	E410	714	-42.7	E428	703	-39.1
18) Product Stocks Withdrawn (+) or Added (-) <sup>4</sup>	-78	525	--	170	1,071	--
19) Total Product Supplied for Domestic Use	15,222	14,829	2.6	15,929	14,962	6.5
<b>Products Supplied</b>						
20) Motor Gasoline	6,711	6,525	2.8	6,432	6,338	1.5
21) Naphtha-type Jet Fuel	227	214	5.8	207	213	-2.8
22) Kerosene-type Jet Fuel	818	838	-2.3	910	801	13.6
23) Distillate Fuel Oil	3,028	2,726	11.1	3,144	2,804	12.1
24) Residual Fuel Oil	1,356	1,379	-1.7	1,656	1,524	8.7
25) Other Oils Supplied <sup>5</sup>	3,082	3,146	-2.1	3,580	3,281	9.1
26) Total Products Supplied	15,222	14,829	2.6	15,929	14,962	6.5
<b>Petroleum Stocks</b> (billion Barrels)				Percent Change from		
	04/27/84	04/20/84	04/27/83	Previous Week	Year Ago	
27) Crude Oil (Excluding SPR) <sup>6</sup>	341.5	345.3	364.9	-1.1	-6.4	
28) Motor Gasoline	245.0	243.4	221.2	0.7	10.7	
29) Finished Motor Gasoline	205.3	203.4	183.0	0.9	12.2	
30) Blending Components	39.7	39.9	38.2	-0.5	3.9	
31) Naphtha-type Jet Fuel	6.5	6.3	6.5	4.1	0.1	
32) Kerosene-type Jet Fuel	34.8	33.0	34.0	5.5	2.4	
33) Distillate Fuel Oil	99.2	98.8	105.3	0.4	-5.7	
34) Residual Fuel Oil	43.5	42.4	46.6	2.7	-6.5	
35) Finished Oils	115.0	116.2	113.7	-1.0	1.1	
36) Other Oils <sup>7</sup>	E166.9	E165.4	166.6	0.9	0.2	
37) Total Stocks (Excluding SPR)	1,052.5	1,050.7	1,058.7	0.2	-0.6	
38) Crude Oil In SPR	396.0	395.3	316.9	0.2	24.9	
39) Total Stocks (Including SPR)	1,448.5	1,446.0	1,375.6	0.2	5.3	

E=Estimate based on monthly data.

1 Includes lease condensate.

2 Net Imports = Gross Imports (line 3) + SPR Imports (line 4) - Exports (line 5).

3 Includes finished petroleum products, unfinished oils, gasoline blending components, and natural gas plant liquids for processing.

4 Includes an estimate of minor product stock change based on monthly data.

5 Other oils product supplied includes crude oil product supplied and the reduction for reclassified products.

6 Includes crude oil in transit to refineries.

7 Includes are stocks of all other oils such as aviation gasoline, kerosene, natural gas liquids (including ethane), aviation gasoline blending components, naphtha and other oils for petrochemical stock use, special naphthas, lube oils, wax, coke, asphalt, road oil, and miscellaneous oils.

the current two weeks, stocks of these minor products are estimated from monthly data. (See Glossary: Stock Change (Refined Products)).

Note: Due to independent rounding, individual product detail may not add to total. The percentages shown calculated using unrounded numbers.

Sources:

o 1982 Annual Data: EIA, "Petroleum Supply Annual."

o 1983-1984 Monthly Data: EIA, "Petroleum Supply Monthly."

o 1984 Four-Week Averages: Estimates based on EIA weekly data.

Weekly Petroleum Status Report/Energy Information Administration

REFINERY ACTIVITY  
(Million Barrels per Day)

Inputs and Utilization

Year/Element	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1982												
Crude Oil Input	11.6	11.2	11.3	11.4	11.8	12.5	12.4	11.9	12.1	11.7	11.7	11.5
Gross Inputs	12.0	11.6	11.7	11.8	12.2	12.9	12.9	12.2	12.6	12.2	12.1	11.9
Operable Capacity	17.9	17.8	17.8	17.8	17.8	17.3	17.2	17.2	17.0	17.2	17.2	17.1
Percentage Utilization <sup>1</sup>	67.0	65.1	65.5	66.2	68.8	74.9	74.9	71.0	73.9	70.6	70.6	69.7
1983												
Crude Oil Input	11.1	10.6	10.9	11.4	11.8	12.3	12.3	12.1	12.4	11.8	12.0	11.2
Gross Inputs	11.4	11.0	11.1	11.7	12.1	12.6	12.6	12.3	12.5	12.0	12.3	11.4
Operable Capacity	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.7	16.3	16.3	16.3	16.3
Percentage Utilization <sup>1</sup>	67.9	65.4	66.0	69.3	71.6	74.9	74.9	73.7	76.5	73.4	75.2	69.8
1984												
Crude Oil Input	11.6	12.1										
Gross Inputs	11.8	12.3										
Operable Capacity	16.2	16.1										
Percentage Utilization <sup>1</sup>	72.9	76.1										
Average for Four-Week Period Ending:												
1984	3/2	3/9	3/16	3/23	3/30	4/6	4/13	4/20	4/27			
Crude Oil Input	12.1	12.2	12.2	12.1	12.0	11.8	11.7	11.8	11.9			
Gross Inputs	12.2	12.3	12.3	12.1	12.1	11.9	11.8	11.9	12.1			
Operable Capacity	E16.3	E16.3	E16.3	E16.2	E16.2	E16.2	E16.2	E16.1	E16.1			
Percentage Utilization <sup>1</sup>	74.9	75.3	75.3	74.9	74.5	73.4	73.0	73.7	74.7			

Production by Product

Year/Product	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1982												
Motor Gasoline	6.2	5.9	6.0	6.1	6.3	6.8	6.8	6.4	6.5	6.3	6.3	6.5
Jet Fuel	0.9	1.0	1.1	1.0	0.9	0.9	1.0	1.0	1.0	1.0	1.0	0.9
Distillate Fuel Oil	2.6	2.4	2.3	2.4	2.6	2.7	2.7	2.5	2.7	2.8	2.9	2.7
Residual Fuel Oil	1.2	1.2	1.1	1.2	1.1	1.1	1.0	1.0	1.0	1.0	1.0	1.0
1983												
Motor Gasoline	6.0	5.8	5.9	6.2	6.4	6.6	6.7	6.5	6.6	6.2	6.6	6.3
Jet Fuel	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.1	1.0	1.1	0.9
Distillate Fuel Oil	2.3	2.1	2.0	2.2	2.4	2.5	2.6	2.6	2.7	2.7	2.7	2.5
Residual Fuel Oil	0.9	0.9	0.8	0.9	0.9	0.8	0.8	0.7	0.8	0.8	0.8	0.9
1984												
Motor Gasoline	6.0	6.3										
Jet Fuel	1.0	1.1										
Distillate Fuel Oil	2.6	2.9										
Residual Fuel Oil	1.0	1.0										
Average for Four-Week Period Ending:												
1984	3/2	3/9	3/16	3/23	3/30	4/6	4/13	4/20	4/27			
Motor Gasoline	6.3	6.3	6.3	6.3	6.4	6.4	6.4	6.4	6.6			
Jet Fuel	1.1	1.1	1.1	1.1	1.1	1.1	1.0	1.0	1.0			
Distillate Fuel Oil	2.8	2.7	2.6	2.5	2.4	2.4	2.4	2.4	2.4			
Residual Fuel Oil	1.1	1.0	1.0	0.9	0.9	0.8	0.8	0.8	0.8			

E=Estimate based on most recent monthly data.

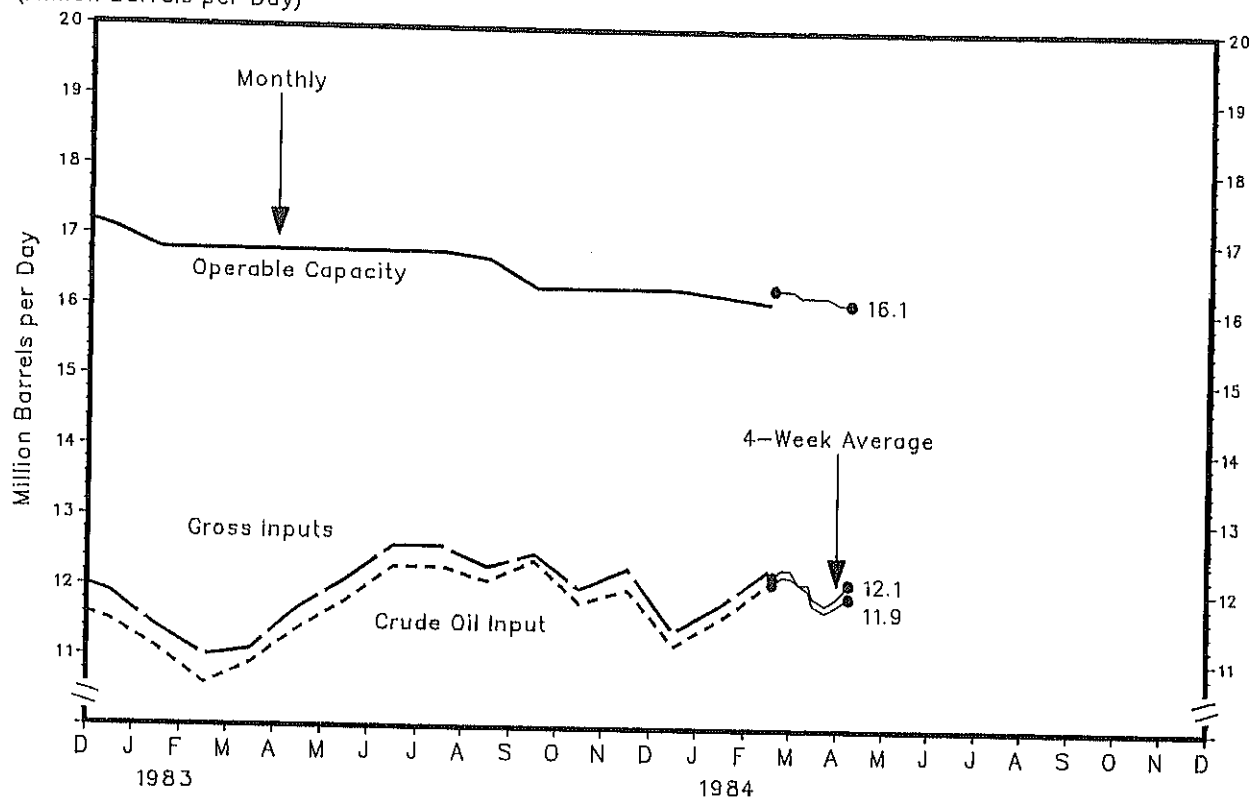
<sup>1</sup> Percentage utilization is calculated as four-week average gross inputs divided by the latest reported monthly operable capacity. See Glossary. Percentages are calculated using unrounded numbers.

Note: Production statistics represent net production (i.e., refinery output minus refinery input).

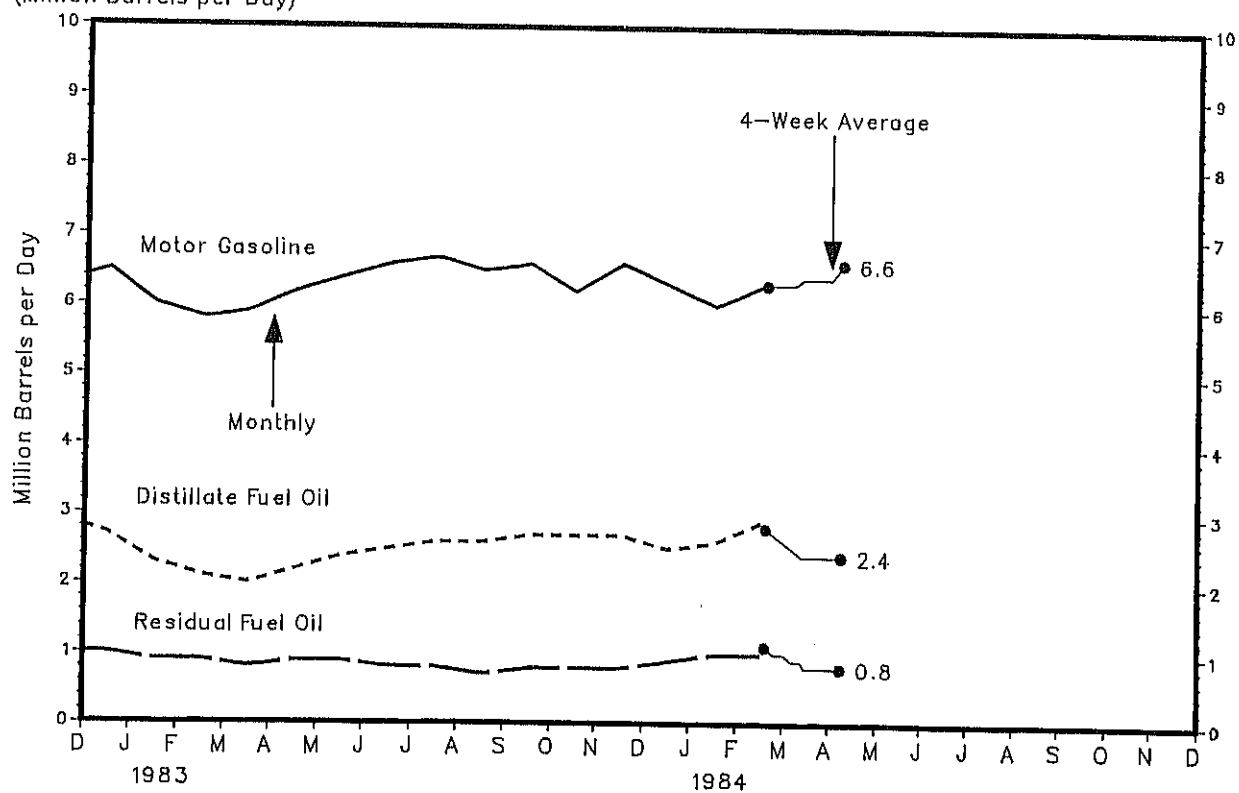
Source: See Sources Section of this publication.

## Refinery Activity

Inputs and Utilization  
(Million Barrels per Day)



Production by Product  
(Million Barrels per Day)



Source: See Sources Section of this publication.

STOCKS OF CRUDE OIL AND PETROLEUM PRODUCTS<sup>1</sup>, U.S. TOTALS  
(in Million Barrels)

Year/Product	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1982												
Crude Oil <sup>2</sup>	371.0	371.8	360.7	354.8	348.5	344.1	345.7	352.9	340.7	351.0	357.6	349.7
Motor Gasoline	260.8	256.6	246.5	221.3	213.9	218.5	225.9	226.9	233.6	234.4	230.0	235.4
Finished Gasoline	213.2	208.4	198.1	178.6	173.1	177.1	182.7	185.2	191.1	192.4	189.3	194.4
Blending Components	47.6	48.3	48.5	42.7	40.8	41.4	43.2	41.8	42.5	42.0	40.7	40.9
Jet Fuel	36.9	36.9	42.5	44.1	41.7	39.9	39.8	40.7	39.6	40.9	40.6	36.8
Stillate Fuel Oil	164.4	147.4	126.3	108.0	113.6	123.7	148.1	158.7	161.2	170.1	185.6	178.6
Residual Fuel Oil	68.7	58.5	58.1	53.6	59.0	60.7	58.9	52.6	61.8	63.6	66.4	66.2
Finished <sup>3</sup> Oils	115.9	116.5	115.9	119.1	118.2	118.0	117.8	116.8	117.8	113.3	111.8	105.3
Other Oils	203.0	199.1	193.3	189.2	190.8	191.1	190.1	186.4	181.3	174.6	173.3	164.1
Total (Excl. SPR)	1,220.6	1,186.9	1,143.4	1,090.0	1,085.7	1,096.0	1,126.3	1,134.9	1,136.1	1,147.8	1,165.2	1,136.1
Crude Oil in SPR	235.3	241.2	248.5	255.5	261.0	264.1	267.2	273.6	277.9	284.6	290.0	293.8
Total (Incl. SPR)	1,455.9	1,428.2	1,391.9	1,345.6	1,346.7	1,360.2	1,393.5	1,408.5	1,414.0	1,432.4	1,455.2	1,429.9
1983 <sup>4</sup>												
Crude Oil <sup>2</sup>	360.9	366.0	358.6	365.8	354.6	353.8	342.0	355.1	351.6	351.0	341.5	343.2
Motor Gasoline	250.9	251.1	224.0	220.8	224.6	223.2	230.6	226.4	229.6	228.3	235.9	222.4
Finished Gasoline	208.3	207.4	183.7	182.9	186.8	183.3	189.8	184.8	189.6	187.8	196.0	185.5
Blending Components	42.6	43.8	40.3	37.9	37.8	39.9	40.8	41.6	40.0	40.5	39.9	36.9
Jet Fuel	41.7	40.5	42.2	40.3	41.3	41.3	41.7	40.2	41.8	43.4	45.9	38.6
Stillate Fuel Oil	168.2	147.4	118.7	103.2	109.2	113.8	131.0	143.5	154.7	163.3	161.3	140.4
Residual Fuel Oil	60.7	53.1	46.3	46.6	50.9	50.1	51.9	48.3	49.7	51.4	54.5	49.1
Finished <sup>3</sup> Oils	110.3	108.3	111.3	114.1	112.4	110.1	107.1	110.5	112.6	112.1	109.0	107.5
Other Oils	159.6	159.3	162.5	167.2	177.2	184.4	189.2	191.5	191.0	195.2	190.9	172.9
Total (Excl. SPR)	1,152.2	1,125.7	1,063.6	1,057.9	1,070.3	1,076.8	1,093.5	1,115.6	1,131.1	1,144.6	1,139.0	1,074.0
Crude Oil in SPR	300.6	306.1	311.8	317.7	326.8	332.5	340.7	351.8	361.0	367.2	371.3	379.1
Total (Incl. SPR)	1,452.8	1,431.9	1,375.4	1,375.7	1,397.1	1,409.3	1,434.2	1,467.4	1,492.1	1,511.9	1,510.3	1,453.1
1984												
Crude Oil <sup>2</sup>	348.4	340.2										
Motor Gasoline	225.5	237.1										
Finished Gasoline	185.5	196.6										
Blending Components	39.9	40.5										
Jet Fuel	35.6	39.0										
Stillate Fuel Oil	119.5	132.2										
Residual Fuel Oil	45.4	57.6										
Finished <sup>3</sup> Oils	110.8	109.6										
Other Oils	160.5	160.9										
Total (Excl. SPR)	1,045.6	1,076.7										
Crude Oil in SPR	384.4	387.2										
Total (Incl. SPR)	1,430.0	1,463.9										
Week Ending:												
1984	3/2	3/9	3/16	3/23	3/30	4/6	4/13	4/20	4/27			
Crude Oil <sup>2</sup>	339.5	334.9	334.2	330.8	332.3	342.5	345.9	345.3	341.5			
Motor Gasoline	233.3	235.8	236.8	237.0	241.6	241.9	242.7	243.4	245.0			
Finished Gasoline	194.3	196.9	197.1	196.6	201.9	200.9	202.5	203.4	205.3			
Blending Components	39.0	38.9	39.6	40.3	39.8	41.0	40.3	39.9	39.7			
Jet Fuel	38.8	39.9	40.6	40.0	39.8	40.3	39.7	39.3	41.3			
Stillate Fuel Oil	129.9	128.0	121.0	115.5	112.6	104.9	101.4	98.8	99.2			
Residual Fuel Oil	52.6	52.6	49.1	48.4	47.5	46.0	44.5	42.4	43.5			
Finished <sup>3</sup> Oils	105.3	107.6	109.4	111.0	112.3	111.0	114.3	116.2	115.0			
Other Oils	E156.0	E156.1	E156.2	E154.9	E155.0	E156.1	E157.6	E165.4	E166.9			
Total (Excl. SPR)	1,055.4	1,054.9	1,047.3	1,037.6	1,041.1	1,042.8	1,046.1	1,050.7	1,052.5			
Crude Oil in SPR	387.2	387.6	388.7	389.3	391.8	393.5	393.5	395.3	396.0			
Total (Incl. SPR)	1,442.6	1,442.4	1,436.0	1,426.8	1,432.9	1,436.3	1,439.6	1,446.0	1,448.5			

E=Estimated. See Glossary for definition of "Stock Change (Refined Products)" for explanation of other oils estimation methodology.

<sup>1</sup> Product stocks include those stocks held at refineries, in pipelines, and at major bulk terminals. Stocks held at natural gas processing plants are included in "Other Oils" and in totals. All stock levels are as of the end of the period.

<sup>2</sup> Crude oil stocks include those stocks held at refineries, in pipelines, in lease tanks, and in transit at refineries, and do not include those held in the Strategic Petroleum Reserve.

<sup>3</sup> Included are stocks of all other oils such as aviation gasoline, kerosene, natural gas liquids (including propane), aviation gasoline blending components, naphtha and other oils for petrochemical feedstock use, special naphthas, lube oils, wax, coke, asphalt, road oil, and miscellaneous oils.

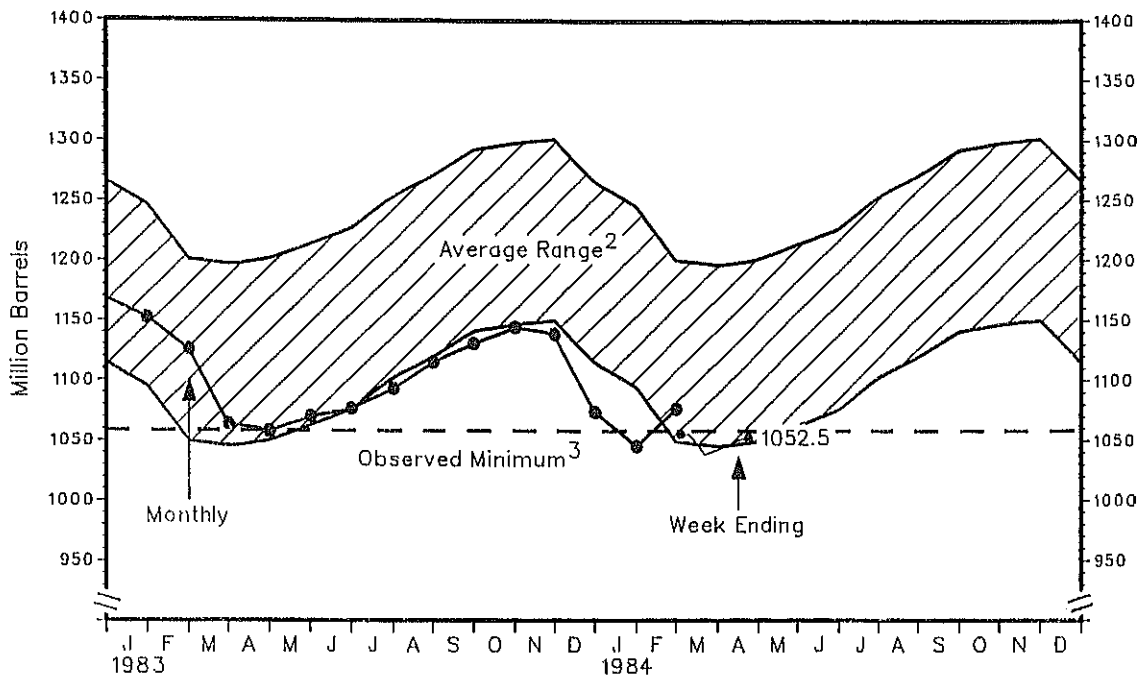
<sup>4</sup> See Appendix D for explanation of the 1983 new stock basis.

Source: See Sources Section of this publication.

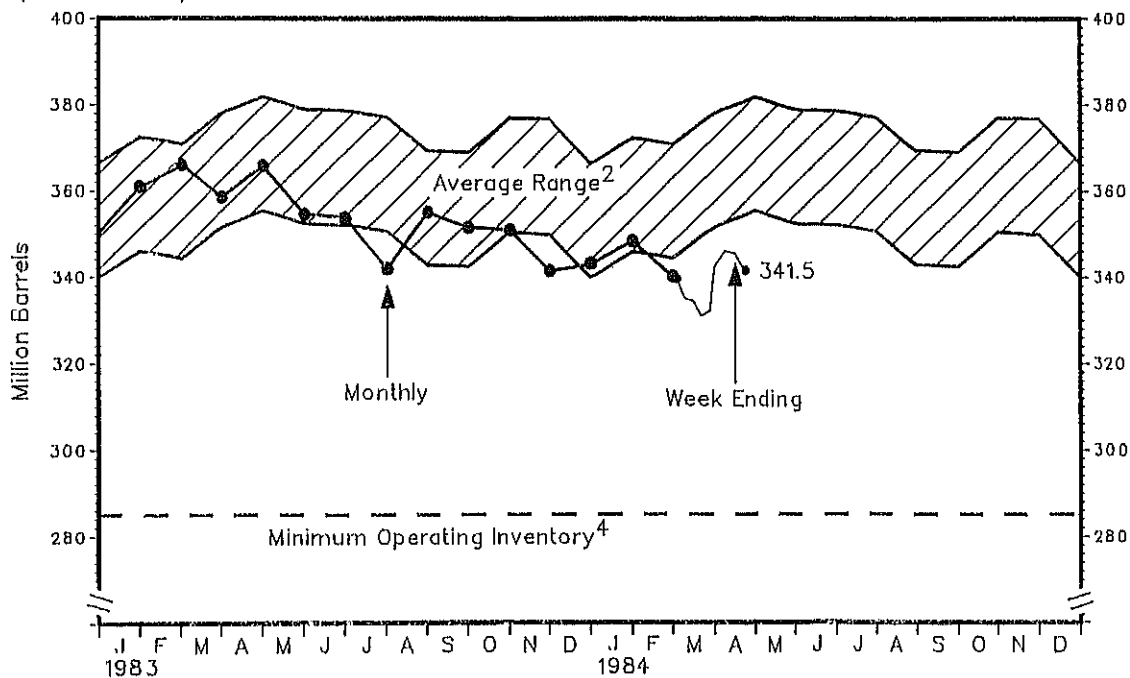


## Stocks

Crude Oil and Petroleum Products, U.S. Total<sup>1</sup>  
(Million Barrels)



Crude Oil, U.S. Total<sup>1</sup>  
(Million Barrels)



1 Excludes stocks held in the Strategic Petroleum Reserve and includes crude oil in transit to refineries. See Appendix D for explanation of the 1983 new stock basis.

2 Average level, width of average range, and observed minimum are based on three years of monthly data: January 1981–December 1983. The seasonal pattern is based on seven years of monthly data: January 1977–December 1983. See Appendix B for further explanation.

3 The observed minimum for total stocks in the last three-year period January 1981–December 1983, was 1057.9 million barrels. It occurred in April 1983. See Appendix B for further explanation.

4 The National Petroleum Council (NPC) defines the Minimum Operating Inventory as the inventory level below which operating problems and shortages would begin to appear in a defined distribution system. In its 1983 study, the NPC estimated this inventory level for crude oil to be 285 million barrels. See Appendix B for further explanation.

Source: See Sources Section of this publication.

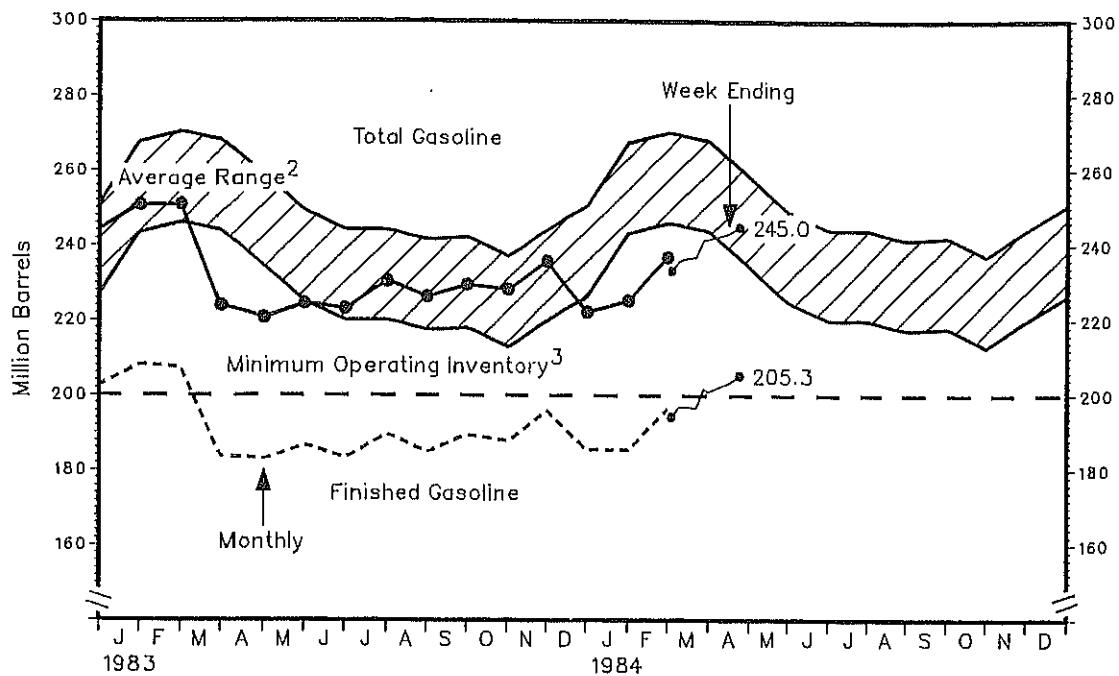
STOCKS OF MOTOR GASOLINE BY PETROLEUM ADMINISTRATION FOR DEFENSE DISTRICT  
(Million Barrels)

Area/District	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>32</b>												
Finished Gasoline	213.2	208.4	198.1	178.6	173.1	177.1	182.7	185.2	191.1	192.4	189.3	194.4
Ending Components	47.6	48.3	48.5	42.7	40.8	41.4	43.2	41.8	42.5	42.0	40.7	40.9
Total Gasoline	260.8	256.6	246.5	221.3	213.9	218.5	225.9	226.9	233.6	234.4	230.0	235.4
East Coast (PADD 1)	71.9	69.7	66.8	61.4	63.6	65.5	63.1	62.5	63.5	63.5	66.1	67.5
Midwest (PADD 2)	77.7	78.4	74.0	62.7	56.1	56.4	62.8	65.8	69.3	67.0	64.0	65.3
Gulf Coast (PADD 3)	70.2	69.3	68.0	63.2	63.5	64.9	66.0	65.2	67.5	69.8	65.5	66.2
Rocky Mountain (PADD 4)	9.6	9.9	10.1	9.0	7.7	6.5	5.8	5.5	5.7	6.5	7.1	8.5
West Coast (PADD 5)	31.4	29.3	27.6	25.0	23.2	25.3	28.1	27.9	27.7	27.6	27.2	27.9
<b>33</b>												
Finished Gasoline	208.3	207.4	183.7	182.9	186.8	183.3	189.8	184.8	189.6	187.8	196.0	185.5
Ending Components	42.6	43.8	40.3	37.9	37.8	39.9	40.8	41.6	40.0	40.5	39.9	36.9
Total Gasoline	250.9	251.1	224.0	220.8	224.6	223.2	230.6	226.4	229.6	228.3	235.9	222.4
East Coast (PADD 1)	69.9	66.0	55.4	60.8	63.6	61.3	64.3	62.6	64.1	61.7	63.5	63.8
Midwest (PADD 2)	75.3	77.2	68.3	65.4	64.6	63.7	64.6	64.8	65.7	65.3	68.4	63.7
Gulf Coast (PADD 3)	65.0	66.6	66.3	62.7	64.0	64.7	65.1	62.3	65.0	68.0	70.0	60.1
Rocky Mountain (PADD 4)	9.4	9.4	8.3	7.9	7.4	6.7	6.4	5.9	5.9	6.3	7.4	7.7
West Coast (PADD 5)	31.3	31.9	25.8	24.1	25.0	26.9	30.2	30.8	29.0	27.1	26.6	27.0
<b>34</b>												
Finished Gasoline	185.5	196.6										
Ending Components	39.9	40.5										
Total Gasoline	225.5	237.1										
East Coast (PADD 1)	61.4	65.2										
Midwest (PADD 2)	63.2	68.4										
Gulf Coast (PADD 3)	62.6	66.2										
Rocky Mountain (PADD 4)	8.4	8.7										
West Coast (PADD 5)	29.9	28.6										
<b>Week Ending:</b>												
<b>4</b>	<b>3/2</b>	<b>3/9</b>	<b>3/16</b>	<b>3/23</b>	<b>3/30</b>	<b>4/6</b>	<b>4/13</b>	<b>4/20</b>	<b>4/27</b>			
Finished Gasoline	194.3	196.9	197.1	196.6	201.9	200.9	202.5	203.4	205.3			
Ending Components	39.0	38.9	39.6	40.3	39.8	41.0	40.3	39.9	39.7			
Total Gasoline	233.3	235.8	236.8	237.0	241.6	241.9	242.7	243.4	245.0			
East Coast (PADD 1)	64.3	65.9	65.1	63.7	65.3	65.6	65.8	67.7	67.5			
Midwest (PADD 2)	66.4	70.0	69.0	69.9	70.1	70.6	70.1	68.9	70.1			
Gulf Coast (PADD 3)	66.0	63.9	67.3	69.1	71.2	70.6	71.7	71.3	71.8			
Rocky Mountain (PADD 4)	8.7	8.6	8.8	8.7	9.0	8.7	8.4	8.5	8.5			
West Coast (PADD 5)	27.9	27.3	26.6	25.6	26.1	26.4	26.8	26.9	27.1			

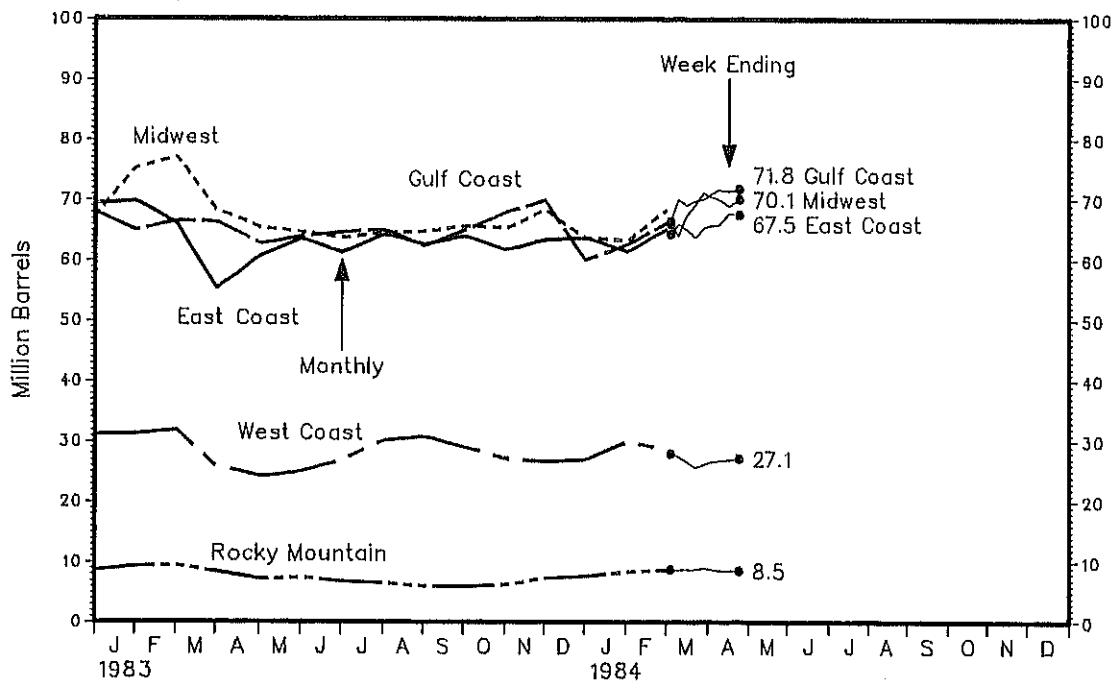
1 See Appendix D for explanation of the 1983 new stock basis.  
Note: DAD District data may not add to total due to independent rounding.  
See Sources Section of this publication.

## Stocks

Motor Gasoline, U.S. Total<sup>1</sup>  
(Million Barrels)



Motor Gasoline by Petroleum Administration for Defense District<sup>1</sup>  
(Million Barrels)



1 See Appendix D for explanation of the 1983 new stock basis.

2 Average level, width of average range, and observed minimum are based on three years of monthly data: January 1981–December 1983. The seasonal pattern is based on six years of monthly data. See Appendix B for further explanation.

3 The National Petroleum Council (NPC) defines the Minimum Operating Inventory as the inventory level below which operating problems and shortages would begin to appear in a defined distribution system. In its 1983 study, the NPC estimated this inventory level for motor gasoline to be 200 million barrels. See Appendix B for further explanation.

Source: See Sources Section of this publication.

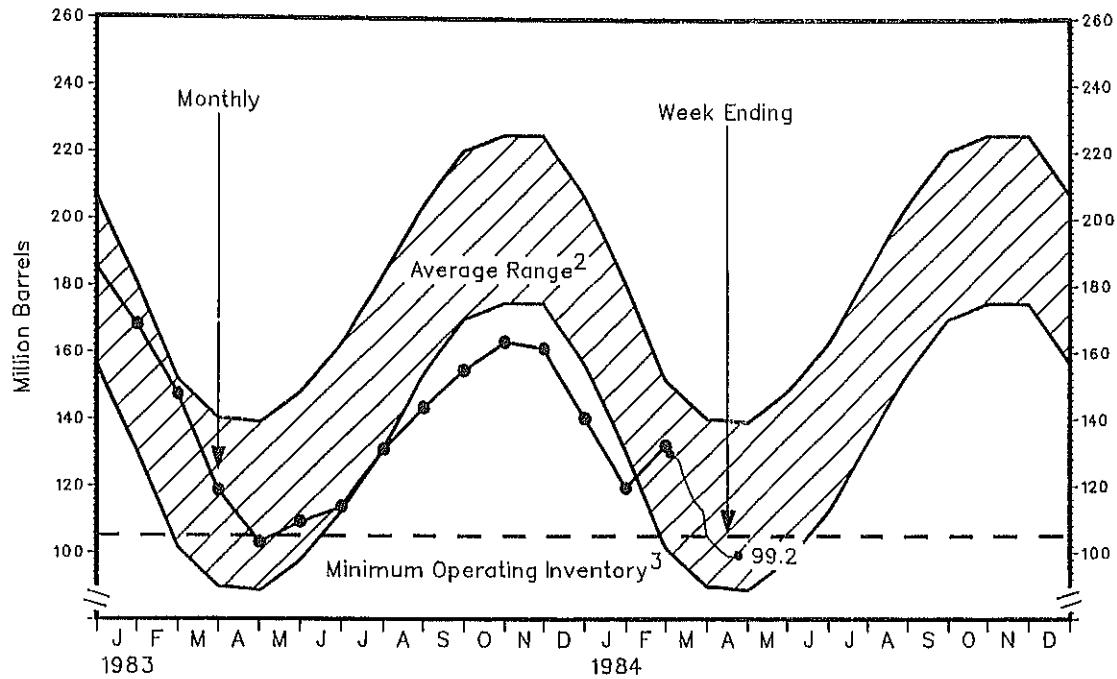
STOCKS OF DISTILLATE FUEL OIL BY PETROLEUM ADMINISTRATION FOR DEFENSE DISTRICT  
(Million Barrels)

Year/District	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>1982</b>												
Total U.S.	164.4	147.4	126.3	108.0	113.6	123.7	148.1	158.7	161.2	170.1	185.6	178.6
East Coast(PADD 1)	68.3	60.3	44.7	35.0	39.1	44.2	57.4	63.9	68.0	75.7	88.7	80.6
Midwest(PADD 2)	46.7	43.1	39.5	30.8	30.8	33.7	42.6	45.5	45.6	44.2	45.3	47.0
Gulf Coast(PADD 3)	31.0	26.8	27.6	28.5	31.1	32.6	34.1	35.6	34.0	37.0	36.9	34.2
Rocky Mountain(PADD 4)	4.1	3.9	3.7	3.1	2.8	3.0	3.4	3.5	3.5	3.5	3.5	4.0
West Coast(PADD 5)	14.2	13.3	10.8	10.5	9.8	10.2	10.6	10.2	10.1	9.6	11.3	12.7
<b>1983<sup>1</sup></b>												
Total U.S.	168.2	147.4	118.7	103.2	109.2	113.8	131.0	143.5	154.7	163.3	161.3	140.4
East Coast(PADD 1)	71.1	55.3	38.1	31.8	37.2	41.1	50.9	61.9	67.5	74.6	70.8	57.8
Midwest(PADD 2)	47.2	46.4	39.0	33.3	30.4	29.6	33.6	36.7	39.1	40.8	42.7	40.3
Gulf Coast(PADD 3)	31.7	28.9	27.2	26.0	28.8	29.7	32.5	31.3	34.7	34.6	33.8	27.8
Rocky Mountain(PADD 4)	4.1	4.0	3.3	2.8	2.9	2.8	3.0	3.0	2.7	2.6	2.8	3.3
West Coast(PADD 5)	14.1	12.8	11.1	9.4	9.9	10.6	11.0	10.6	10.8	10.7	11.2	11.2
<b>1984</b>												
Total U.S.	119.5	132.2										
East Coast(PADD 1)	43.4	54.4										
Midwest(PADD 2)	37.1	37.0										
Gulf Coast(PADD 3)	24.7	26.8										
Rocky Mountain(PADD 4)	3.4	3.2										
West Coast(PADD 5)	10.8	10.8										
Week Ending:												
1984	3/2	3/9	3/16	3/23	3/30	4/6	4/13	4/20	4/27			
Total U.S.	129.9	128.0	121.0	115.5	112.6	104.9	101.4	98.8	99.2			
East Coast(PADD 1)	51.5	49.6	44.7	41.5	37.7	32.5	30.5	28.9	29.4			
Midwest(PADD 2)	37.3	36.3	35.5	34.7	33.7	32.8	31.4	30.9	29.7			
Gulf Coast(PADD 3)	27.8	28.0	26.6	25.2	26.9	25.5	25.1	25.1	26.2			
Rocky Mountain(PADD 4)	3.0	3.1	3.3	3.1	3.3	3.2	3.1	3.0	3.0			
West Coast(PADD 5)	10.3	11.0	10.9	11.0	11.0	10.9	11.3	10.7	11.0			

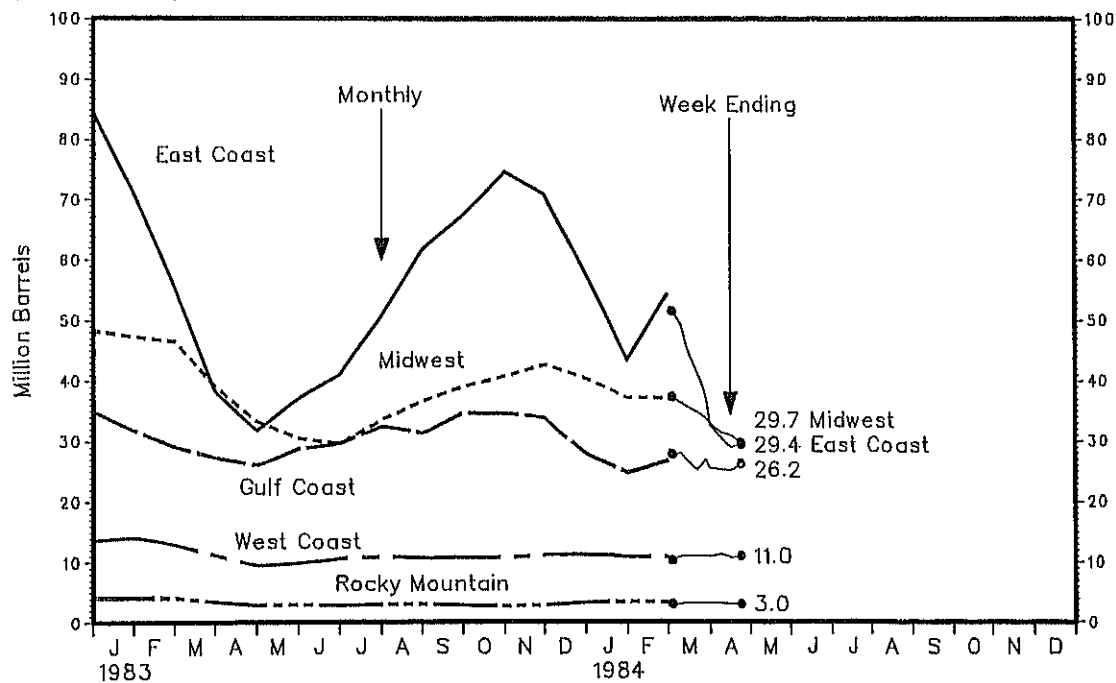
<sup>1</sup> See Appendix D for explanation of the 1983 new stock basis.  
Note: PAD District data may not add to total due to rounding.  
Source: See Sources Section of this publication.

## Stocks

Distillate Fuel Oil, U.S. Total<sup>1</sup>  
(Million Barrels)



Distillate Fuel Oil by Petroleum Administration for Defense District<sup>1</sup>  
(Million Barrels)



<sup>1</sup> See Appendix D for explanation of the 1983 new stock basis.

<sup>2</sup> Average level, width of average range, and observed minimum are based on three years of monthly data: January 1981–December 1983. The seasonal pattern is based on seven years of monthly data. See Appendix B for further explanation.

<sup>3</sup> The National Petroleum Council (NPC) defines the Minimum Operating Inventory as the inventory level below which operating problems and shortages would begin to appear in a defined distribution system. In its 1983 study, the NPC estimated this inventory level for distillate fuel oil to be 105 million barrels. See Appendix B for further explanation.

Source: See Sources Section of this publication.

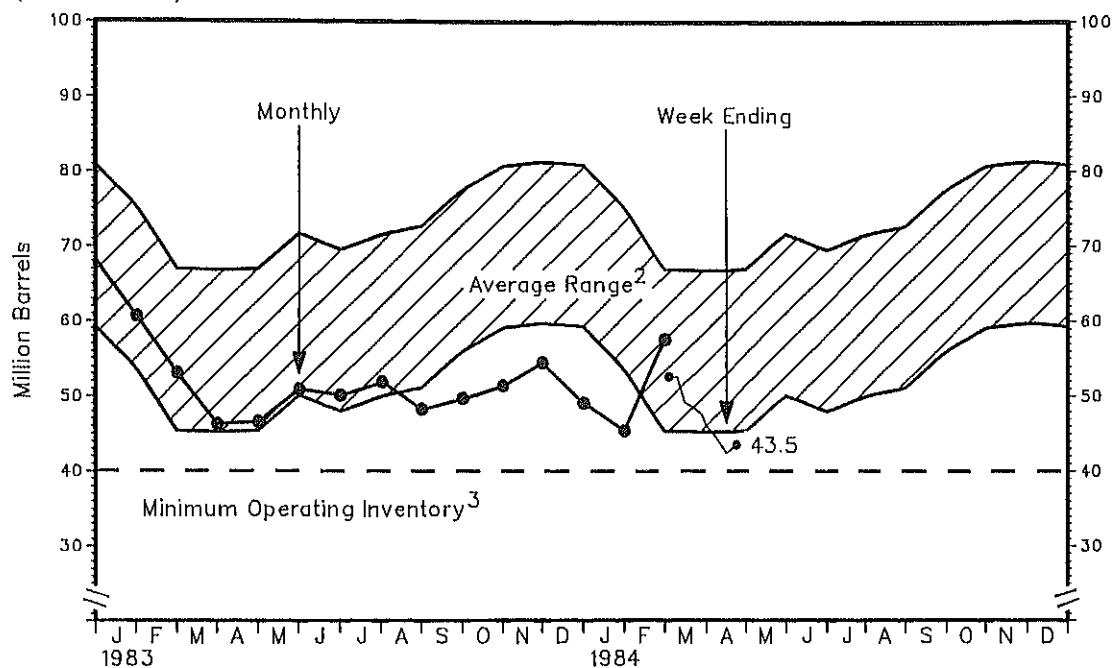
STOCKS OF RESIDUAL FUEL OIL BY PETROLEUM ADMINISTRATION FOR DEFENSE DISTRICT  
(Million Barrels)

Year/District	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>1982</b>												
Total U.S.	68.7	58.5	58.1	53.6	59.0	60.7	58.9	52.6	61.8	63.6	66.4	66.2
East Coast(PADD 1)	32.2	25.0	25.0	23.4	28.3	28.2	27.1	23.1	29.0	32.8	36.4	34.7
Midwest(PADD 2)	7.8	7.3	7.0	6.2	6.0	5.6	5.7	5.2	5.7	5.1	5.0	5.2
Gulf Coast(PADD 3)	17.7	14.7	14.7	13.5	15.0	17.1	16.4	15.5	16.2	15.6	16.1	16.3
Rocky Mountain(PADD 4)	0.6	0.7	0.6	0.5	0.5	0.5	0.5	0.4	0.5	0.5	0.5	0.6
West Coast(PADD 5)	10.3	10.8	10.9	10.0	9.2	9.3	9.3	8.4	10.4	9.6	8.4	9.3
<b>1983<sup>1</sup></b>												
Total U.S.	60.7	53.1	46.3	46.6	50.9	50.1	51.9	48.3	49.7	51.4	54.5	49.1
East Coast(PADD 1)	29.9	25.1	20.6	20.3	23.8	24.0	25.3	23.8	23.5	25.3	29.3	25.0
Midwest(PADD 2)	5.0	4.5	3.6	3.4	3.5	3.7	3.7	3.7	3.5	3.8	3.6	4.0
Gulf Coast(PADD 3)	16.3	14.0	12.8	13.4	14.5	13.5	13.8	13.3	13.8	13.6	12.5	11.5
Rocky Mountain(PADD 4)	0.5	0.4	0.4	0.5	0.5	0.4	0.5	0.5	0.5	0.5	0.5	0.5
West Coast(PADD 5)	9.0	9.1	8.9	9.0	8.5	8.4	8.6	7.1	8.4	8.3	8.6	8.2
<b>1984</b>												
Total U.S.	45.4	57.6										
East Coast(PADD 1)	21.0	30.8										
Midwest(PADD 2)	3.6	4.2										
Gulf Coast(PADD 3)	11.8	12.9										
Rocky Mountain(PADD 4)	0.4	0.4										
West Coast(PADD 5)	8.7	9.4										
<b>Week Ending:</b>												
<b>1984</b>	<b>3/2</b>	<b>3/9</b>	<b>3/16</b>	<b>3/23</b>	<b>3/30</b>	<b>4/6</b>	<b>4/13</b>	<b>4/20</b>	<b>4/27</b>			
Total U.S.	52.6	52.6	49.1	48.4	47.5	46.0	44.5	42.4	43.5			
East Coast(PADD 1)	27.4	27.3	25.3	25.0	25.1	23.8	22.4	20.2	20.5			
Midwest(PADD 2)	4.2	4.5	4.4	4.1	4.1	4.3	4.2	3.9	3.9			
Gulf Coast(PADD 3)	12.0	11.4	10.6	9.4	9.4	8.9	8.8	9.5	10.2			
Rocky Mountain(PADD 4)	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6			
West Coast(PADD 5)	8.5	9.0	8.4	9.4	8.5	8.4	8.5	8.2	8.5			

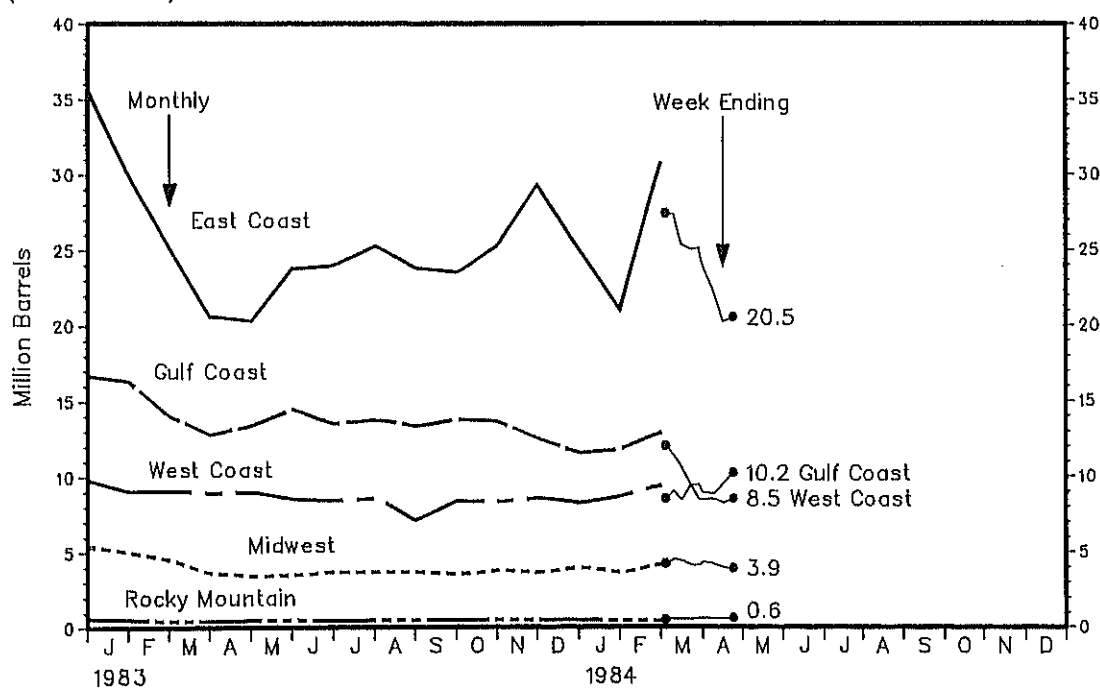
<sup>1</sup> See Appendix D for explanation of the 1983 new stock basis.  
Note: PAD District data may not add to total due to rounding.  
Source: See Sources Section of this publication.

## Stocks

Residual Fuel Oil, U.S. Total<sup>1</sup>  
(Million Barrels)



Residual Fuel Oil by Petroleum Administration for Defense District<sup>1</sup>  
(Million Barrels)



<sup>1</sup> See Appendix D for explanation of the 1983 new stock basis.

<sup>2</sup> Average level, width of average range, and observed minimum are based on three years of monthly data: January 1981–December 1983. The seasonal pattern is based on seven years of monthly data. See Appendix B for further explanation.

<sup>3</sup> The National Petroleum Council (NPC) defines the Minimum Operating Inventory as the inventory level below which operating problems and shortages would begin to appear in a defined distribution system. In its 1983 study, the NPC estimated this inventory level for residual fuel oil to be 40 million barrels. See Appendix B for further explanation.

Source: See Sources Section of this publication.

**IMPORTS OF CRUDE OIL AND PETROLEUM PRODUCTS**  
(Million Barrels per Day)

Year/Product	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>1982</b>												
Crude Oil (Excl. SPR)	3.5	2.7	2.7	2.7	3.1	3.7	4.2	3.6	3.5	3.5	3.7	2.9
SPR	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.2	0.2	0.1
Refined Products	1.6	1.8	1.6	1.5	1.5	1.5	1.6	1.4	1.8	1.6	1.9	1.6
Gross Imports <sup>1</sup> (Incl. SPR)	5.3	4.8	4.5	4.4	4.8	5.3	5.9	5.2	5.4	5.3	5.7	4.6
Total Exports <sup>1</sup>	0.8	0.8	0.9	0.8	0.8	0.7	0.7	0.9	0.8	0.9	0.8	0.9
Net Imports (Incl. SPR)	4.5	4.0	3.6	3.6	4.0	4.6	5.1	4.4	4.6	4.4	5.0	3.7
<b>1983</b>												
Crude Oil (Excl. SPR)	2.7	2.1	2.0	2.9	2.9	3.3	3.6	3.8	3.9	3.2	3.1	3.0
SPR	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.4	0.3	0.2	0.2	0.2
Refined Products	1.4	1.4	1.4	1.6	1.7	1.7	1.8	1.9	1.9	1.8	1.9	1.8
Gross Imports <sup>1</sup> (Incl. SPR)	4.4	3.7	3.6	4.7	4.9	5.2	5.7	6.0	6.1	5.3	5.2	5.0
Total Exports <sup>1</sup>	1.0	0.9	0.8	0.8	0.8	0.8	0.6	0.7	0.7	0.6	0.7	0.6
Net Imports (Incl. SPR)	3.4	2.8	2.8	3.9	4.0	4.4	5.1	5.4	5.4	4.7	4.5	4.3
<b>1984</b>												
Crude Oil (Excl. SPR)	2.8	2.9										
SPR	0.2	0.1										
Refined Products	2.3	2.7										
Gross Imports <sup>1</sup> (Incl. SPR)	5.3	5.6										
Total Exports <sup>1</sup>	0.6	0.6										
Net Imports (Incl. SPR)	4.8	5.1										
<b>Average for Four-Week Period Ending:</b>												
<b>1984</b>	3/2	3/9	3/16	3/23	3/30	4/6	4/13	4/20	4/27			
Crude Oil (Excl. SPR)	2.9	3.3	3.4	3.3	3.4	3.3	3.2	3.2	3.3			
SPR	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1			
Refined Products	2.2	1.9	1.8	1.6	1.6	1.5	1.4	1.4	1.5			
Gross Imports <sup>1</sup> (Incl. SPR)	5.2	5.3	5.3	5.1	5.2	5.0	4.8	4.8	4.9			
Total Exports <sup>1</sup>	E0.7	E0.7	E0.6	E0.6	E0.6	E0.6	E0.6	E0.6	E0.6			
Net Imports (Incl. SPR)	4.6	4.7	4.6	4.4	4.6	4.4	4.3	4.2	4.4			

**IMPORTS OF PETROLEUM PRODUCTS BY PRODUCT**  
(Thousand Barrels per Day)

Year/Product	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>1982</b>												
Finished Motor Gasoline	128	133	183	185	182	230	225	291	223	185	211	178
Jet Fuel	10	62	39	47	31	3	31	26	30	20	40	7
Distillate Fuel Oil	97	132	48	59	74	102	125	80	61	91	145	109
Residual Fuel Oil	831	956	912	788	742	652	657	550	872	783	836	747
Other Petroleum Products <sup>2</sup>	573	533	427	449	474	504	604	445	592	557	650	564
<b>1983</b>												
Finished Motor Gasoline	148	142	205	273	284	265	297	260	285	335	269	217
Jet Fuel	27	8	35	15	35	25	22	22	41	49	18	17
Distillate Fuel Oil	58	58	42	73	141	175	259	302	253	255	189	212
Residual Fuel Oil	691	632	686	743	709	676	682	705	690	634	777	646
Other Petroleum Products <sup>2</sup>	510	583	429	486	495	575	563	574	597	538	603	680
<b>1984</b>												
Finished Motor Gasoline	233	303										
Jet Fuel	60	112										
Distillate Fuel Oil	270	458										
Residual Fuel Oil	1,061	1,107										
Other Petroleum Products <sup>2</sup>	695	711										
<b>Average for Four-Week Period Ending:</b>												
<b>1984</b>	3/2	3/9	3/16	3/23	3/30	4/6	4/13	4/20	4/27			
Finished Motor Gasoline	231	276	234	287	367	340	365	269	245			
Jet Fuel	94	70	58	38	46	52	58	49	61			
Distillate Fuel Oil	449	347	285	160	113	146	117	160	175			
Residual Fuel Oil	1,004	727	714	624	581	611	529	513	540			
Other Petroleum Products <sup>2</sup>	458	529	512	535	475	345	358	393	491			

E=Estimate based on most recent monthly data available.

<sup>1</sup> Includes exports of crude oil and refined petroleum products. Exports of crude oil are prohibited under normal circumstances. Some crude oil is shipped to Canada in exchange on a barrel-for-barrel basis. Shipments of crude oil to Puerto Rico and the Virgin Islands are not prohibited because these territories are U.S. possessions.

<sup>2</sup> Includes imports of kerosene, unfinished oils, motor gasoline blending components, liquefied petroleum gases and other oils.

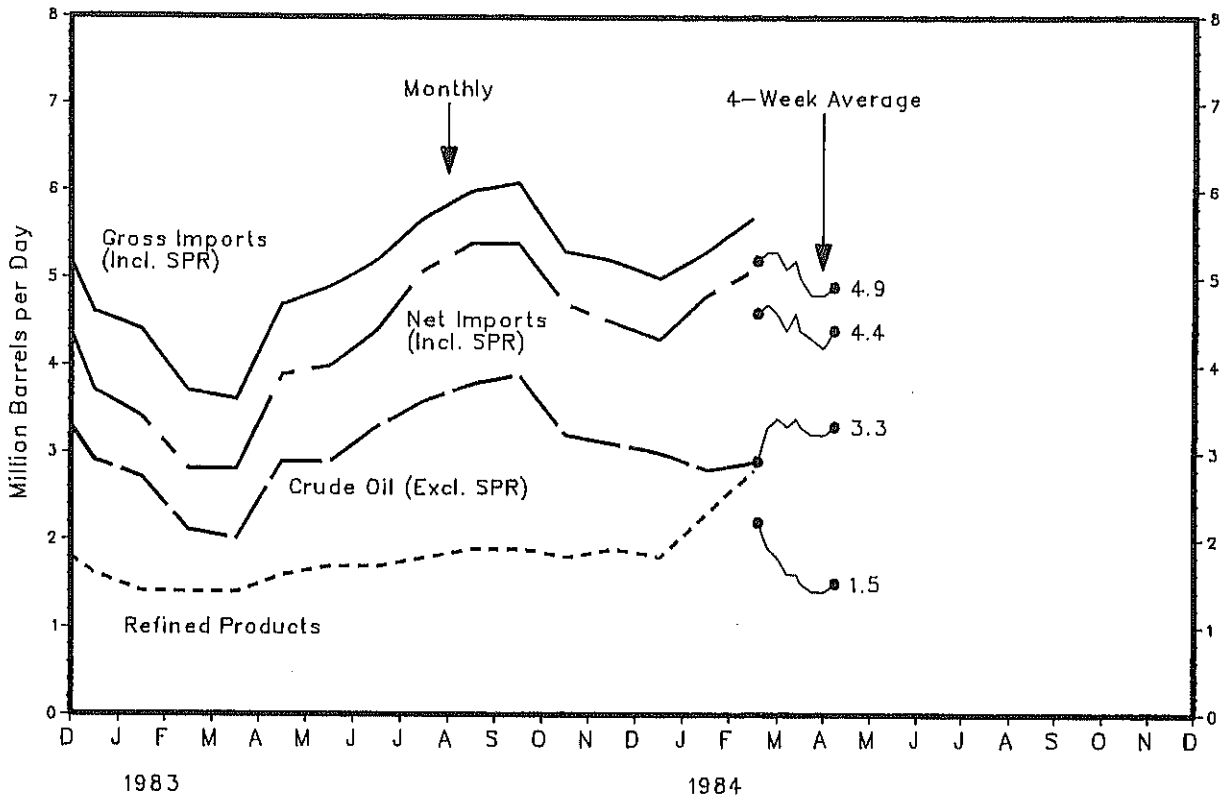
Note: Detail data may not add to total due to independent rounding.

Source: See Sources Section of this publication.

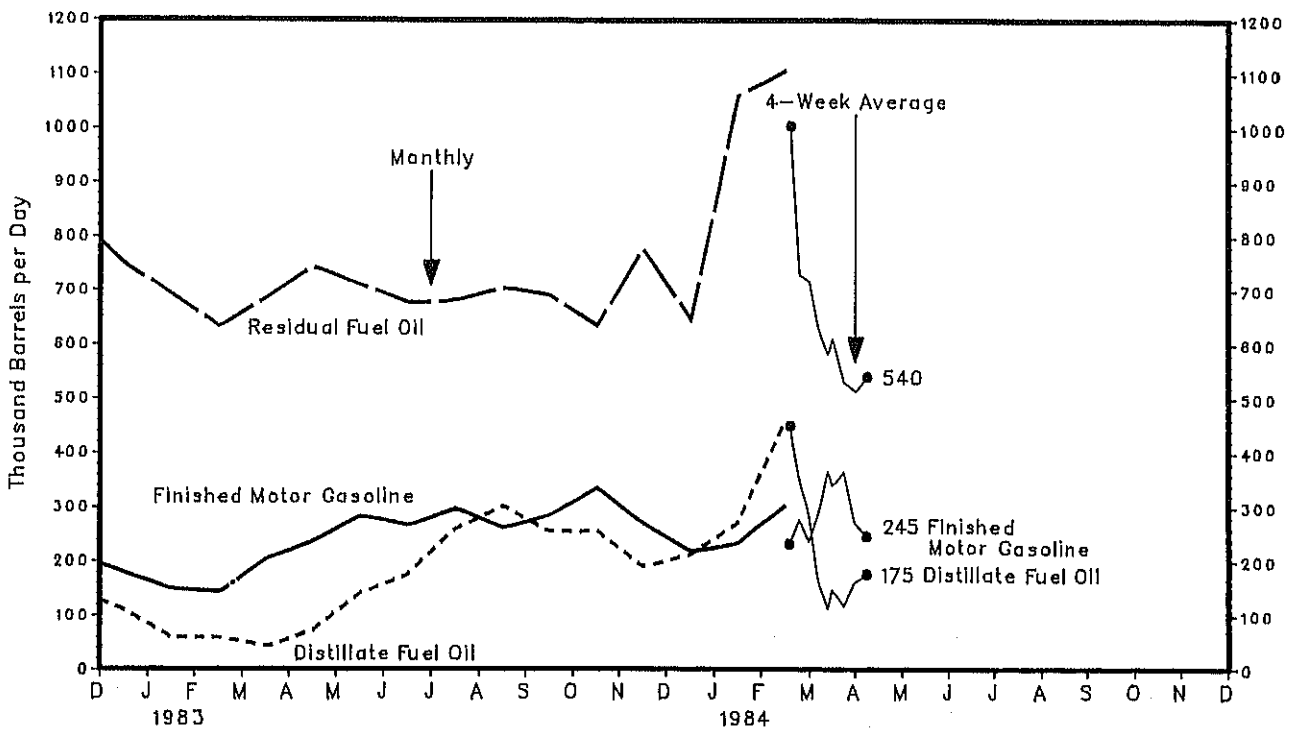


# Imports

Crude Oil and Petroleum Products  
(Million Barrels per Day)

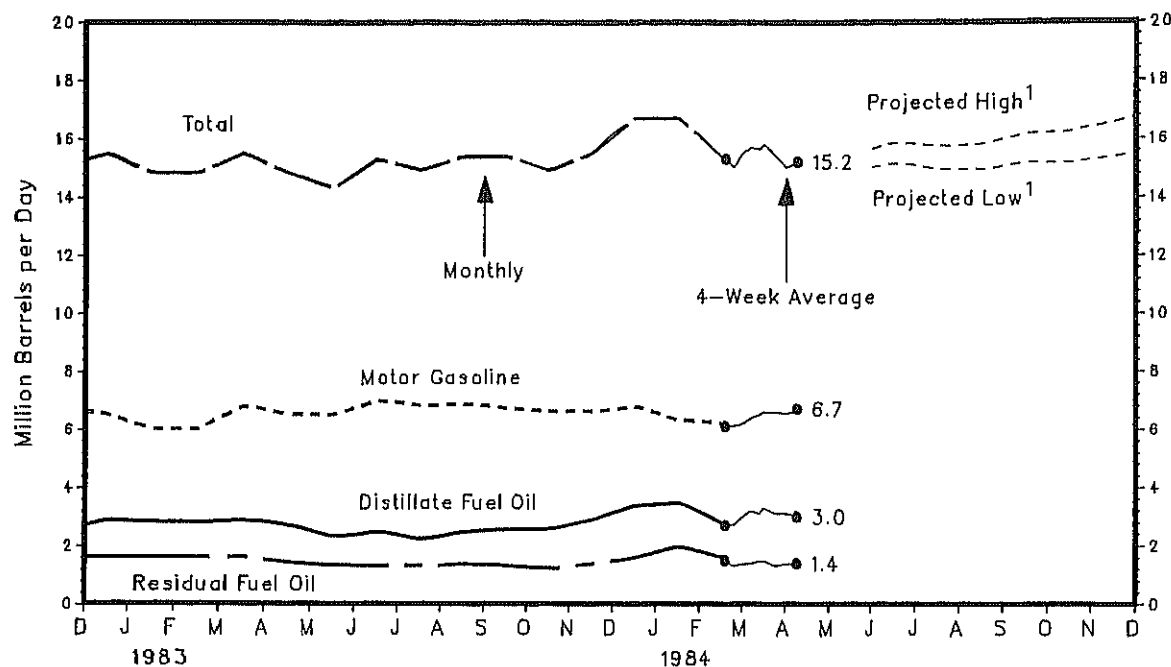


Petroleum Products by Product  
(Thousand Barrels per Day)



Source: See Sources Section of this publication.

PETROLEUM PRODUCTS SUPPLIED  
(Million Barrels per Day)



Year/Product	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1982												
Motor Gasoline	6.0	6.2	6.5	6.9	6.7	6.8	6.8	6.6	6.5	6.4	6.6	6.5
Jet Fuel	1.0	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.1	1.1
Distillate Fuel Oil <sup>2</sup>	3.5	3.1	2.9	3.0	2.4	2.5	2.1	2.2	2.5	2.6	2.5	2.9
Residual Fuel Oil <sup>2</sup>	2.2	2.3	1.9	1.9	1.6	1.5	1.6	1.5	1.5	1.5	1.6	1.6
Other	3.5	3.3	3.3	3.2	3.2	3.2	3.4	3.5	3.5	3.4	3.3	3.4
Total	16.1	16.0	15.6	16.0	14.8	15.0	14.8	14.8	15.0	14.9	15.0	15.5
1983												
Motor Gasoline	6.0	6.0	6.8	6.5	6.5	7.0	6.8	6.9	6.7	6.6	6.6	6.8
Jet Fuel	0.9	1.0	1.0	1.1	1.0	1.1	1.0	1.1	1.1	1.0	1.0	1.2
Distillate Fuel Oil <sup>2</sup>	2.8	2.8	2.9	2.7	2.3	2.5	2.2	2.5	2.6	2.6	2.9	3.4
Residual Fuel Oil <sup>2</sup>	1.6	1.6	1.6	1.4	1.3	1.3	1.3	1.4	1.3	1.2	1.4	1.6
Other	3.5	3.3	3.2	3.1	3.1	3.4	3.6	3.5	3.7	3.5	3.7	3.7
Total	14.8	14.8	15.5	14.8	14.3	15.3	14.9	15.4	15.4	14.9	15.5	16.7
1984												
Motor Gasoline	6.3	6.2										
Jet Fuel	1.2	1.1										
Distillate Fuel Oil <sup>2</sup>	3.5	2.8										
Residual Fuel Oil <sup>2</sup>	2.0	1.6										
Other	3.8	3.6										
Total	16.7	15.4										
Week Ending:												
1984	3/2	3/9	3/16	3/23	3/30	4/6	4/13	4/20	4/27			
Motor Gasoline	6.1	6.1	6.2	6.4	6.5	6.6	6.6	6.5	6.7			
Jet Fuel	1.1	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.0			
Distillate Fuel Oil <sup>2</sup>	2.7	2.7	3.0	3.2	3.1	3.3	3.1	3.1	3.0			
Residual Fuel Oil <sup>2</sup>	1.5	1.3	1.4	1.4	1.5	1.5	1.3	1.4	1.4			
Other	3.8	3.9	3.9	3.5	3.5	3.3	3.2	3.0	3.1			
Total	15.3	15.0	15.5	15.7	15.6	15.8	15.4	15.0	15.2			

<sup>1</sup> Projected. See Appendix C for explanation of derivation of values.

<sup>2</sup> Beginning in 1983, crude oil burned as residual fuel oil or distillate fuel oil is no longer reported to the EIA and therefore is not included in product supplied calculations for these fuels. The product supplied series for distillate and residual fuel oil for 1982 shown on this page are the values published in 1982 EIA publications and include crude oil transfers (about 48 thousand barrels per day for residual fuel oil and 10 thousand barrels per day for distillate fuel oil). See Appendix D for further information.

Note: Detail data may not add to total due to independent rounding.

Source: See Sources Section of this publication.

REFINER ACQUISITION COST OF CRUDE OIL  
(Dollars per Barrel)

Year/Type	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1982												
Domestic	33.39	32.71	31.08	30.27	30.37	30.79	30.92	30.85	30.76	31.38	31.57	30.80
Imported	35.54	35.48	34.07	32.82	32.78	33.79	33.44	32.95	33.03	33.28	33.09	32.85
Composite	33.95	33.40	31.81	30.83	31.02	31.74	31.74	31.45	31.40	31.98	32.07	31.29
1983												
Domestic	30.55	29.16	28.69	28.45	28.68	28.67	28.74	28.58	28.69	28.88	28.76	28.62
Imported	31.40	30.76	28.43	27.95	28.53	29.23	28.76	29.50	29.54	29.67	29.09	29.30
Composite	30.73	29.49	28.64	28.33	28.64	28.85	28.75	28.88	28.97	29.14	28.85	28.83
1984												
Domestic	28.62	28.76										
Imported	28.80	28.91										
Composite	28.67	28.81										

AVERAGE RETAIL SELLING PRICES  
MOTOR GASOLINE AND RESIDENTIAL HEATING OIL  
(Cents per Gallon, Including Taxes)

Year/Product	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1982												
Motor Gasoline												
Leaded Regular	128.5	126.0	120.6	114.8	116.6	124.2	126.3	125.4	123.6	121.9	120.7	118.1
Unleaded Premium	146.6	144.8	140.8	135.1	135.5	141.8	144.3	143.9	142.9	142.1	141.2	139.4
Unleaded Regular	135.8	133.4	128.4	122.5	123.7	130.9	133.1	132.3	130.8	129.5	128.3	126.0
All-Types	134.1	131.8	126.8	121.0	122.4	129.6	131.8	131.0	129.5	128.0	126.8	124.4
Residential Heating Oil	122.0	120.7	115.3	113.2	114.3	116.2	115.8	115.9	115.2	119.6	121.6	119.7
1983												
Motor Gasoline												
Leaded Regular	114.6	109.9	106.4	113.1	117.7	119.7	120.7	120.3	118.9	117.2	115.6	114.6
Unleaded Premium	137.6	133.8	130.8	136.0	139.7	141.1	142.1	141.9	141.0	139.5	138.4	137.6
Unleaded Regular	122.8	118.7	115.1	121.5	125.9	127.7	128.8	128.5	127.4	125.5	124.1	123.1
All-Types	121.3	117.0	113.5	119.8	124.3	126.1	127.2	126.9	125.7	123.9	122.4	121.5
Residential Heating Oil <sup>1</sup>	114.7	111.4	104.9	103.5	104.8	106.0	105.0	104.9	105.7	106.0	106.0	106.7
1984												
Motor Gasoline												
Leaded Regular	113.1	112.5	112.5									
Unleaded Premium	136.9	136.1	136.2									
Unleaded Regular	121.6	120.9	121.0									
All-Types	120.0	119.3	119.4									
Residential Heating Oil <sup>1</sup>	R112.0	P115.9										

R=EIA Revision

P=Preliminary

<sup>1</sup> Beginning in January 1983, residential heating oil prices do not include taxes.

Source: See Sources Section of this publication.

**WORLD CRUDE OIL PRICES<sup>1</sup>**  
(Dollars per Barrel)

Country	Type of Crude/ API Gravity	Current Price	In Effect 1 Jan 83	In Effect 1 Jan 82	In Effect 1 Jan 81	In Effect 1 Jan 80	Percent Change Current Price From		
							In Effect 31 Dec 78	In Effect 1 Jan 80	In Effect 31 Dec 78
OPEC									
Saudi Arabia	Arabian Light 34° (Benchmark crude)	29.00	34.00	34.00	32.00	26.00	12.70	11.5	128.3
	Saudi Berri 39°	29.52	34.52	35.40	33.52	27.52	13.23	7.3	123.1
	Arabian Heavy 27°	26.00	31.00	31.00	31.00	25.00	12.02	4.0	116.3
Abu Dhabi	Murban 39°	29.56	34.56	35.50	36.56	29.56	13.26	0	122.9
Dubai	Fateh 32°	28.86	33.86	33.86	35.93	27.93	12.64	3.3	128.3
Qatar	Dukhan 40°	29.49	34.49	35.45	37.42	29.42	13.19	0.2	123.6
Iran	Iranian Light 34°	28.00	31.20	34.20	37.00	30.00 <sup>2</sup>	13.45	-6.7	108.2
Iraq	Kirkuk 36°	29.83	34.83	34.93	37.50	29.29	13.17	1.8	126.5
Kuwait	Kuwait Blend 31°	27.30	32.30	32.30	35.50	27.50	12.22	-0.7	123.4
Neutral Zone	Khafji 28°	26.03	31.03	31.03	25.20	27.20	12.03	-4.3	116.4
Algeria	Saharan 44°	30.50	35.50	37.00	40.00	33.00	14.10	-7.6	116.3
Nigeria	Bonny Light 37°	30.00	35.50	36.50	40.00	29.97	15.12	0.1	98.4
Libya	Es Sider 37°	30.15	35.10	36.50	40.78	34.50	13.68	-12.6	120.4
Indonesia	Minas 34°	29.53	34.53	35.00	35.00	27.50	13.55	7.4	117.9
Venezuela	Tia Juana 26°	27.88	32.88	32.88	32.88	25.20	12.72	10.6	119.2
Gabon	Mandji 30°	29.00	34.00	34.00	35.00	28.00	12.59	3.6	130.3
Ecuador	Oriente 30°	27.50	32.50	34.25	40.06	33.50	12.35	-17.9	122.7
Total OPEC <sup>3</sup>	NA	28.59	33.54	34.13	34.82	28.30	13.03	1.0	119.4
Non-OPEC									
United Kingdom	Forties 36°	29.90	33.50	36.50	39.25	29.75	14.00	0.5	113.6
Norway	Ekofisk 42°	30.10	34.25	37.25	40.00	32.50	14.20	-7.4	112.0
Mexico	Mexican Light 33°	29.00	32.50	35.00	38.50	32.00	13.10	-9.4	121.4
"	Mexican Heavy 22°	25.00 <sup>4</sup>	25.50	26.50	34.50	28.00	NA	-10.7	NA
Egypt	Suez Blend 33°	28.00 <sup>4</sup>	31.00	34.00	40.50	34.00	12.81	-17.6	118.6
Oman	Oman 34°	29.00	34.00	35.00	37.50	30.26	13.06	-4.2	122.1
Syria	Suwadiyah 25°	25.00	30.00	30.00	36.03	31.39	11.64	-20.4	114.8
Malaysia	Miri 38°	29.85	35.60	36.50	41.30	33.60	14.30	-11.2	108.7
Brunei	Seria 36°	30.10	35.10	36.10	40.35	33.40	14.15	-9.9	112.7
U.S.S.R. <sup>5</sup>	Export Blend 33°	29.10	31.20	35.49	39.25	33.20	13.20	-12.3	120.5
Total Non-OPEC <sup>3</sup>	NA	28.71	31.72	34.35	38.54	31.94	13.44	-10.1	113.6
Total World <sup>3</sup>	NA	28.62	33.00	34.18	35.49	28.84	13.08	-0.8	118.8
United States <sup>6</sup>	NA	28.31	32.51	34.15	36.69	29.35	13.38	-3.5	111.6

NA=Not Applicable.

<sup>1</sup> Official sales prices or estimated term contract prices; spot prices excluded. See Appendix E for further

higher at 60 days' credit.

ices (FOB) weighted by estimated export volume.

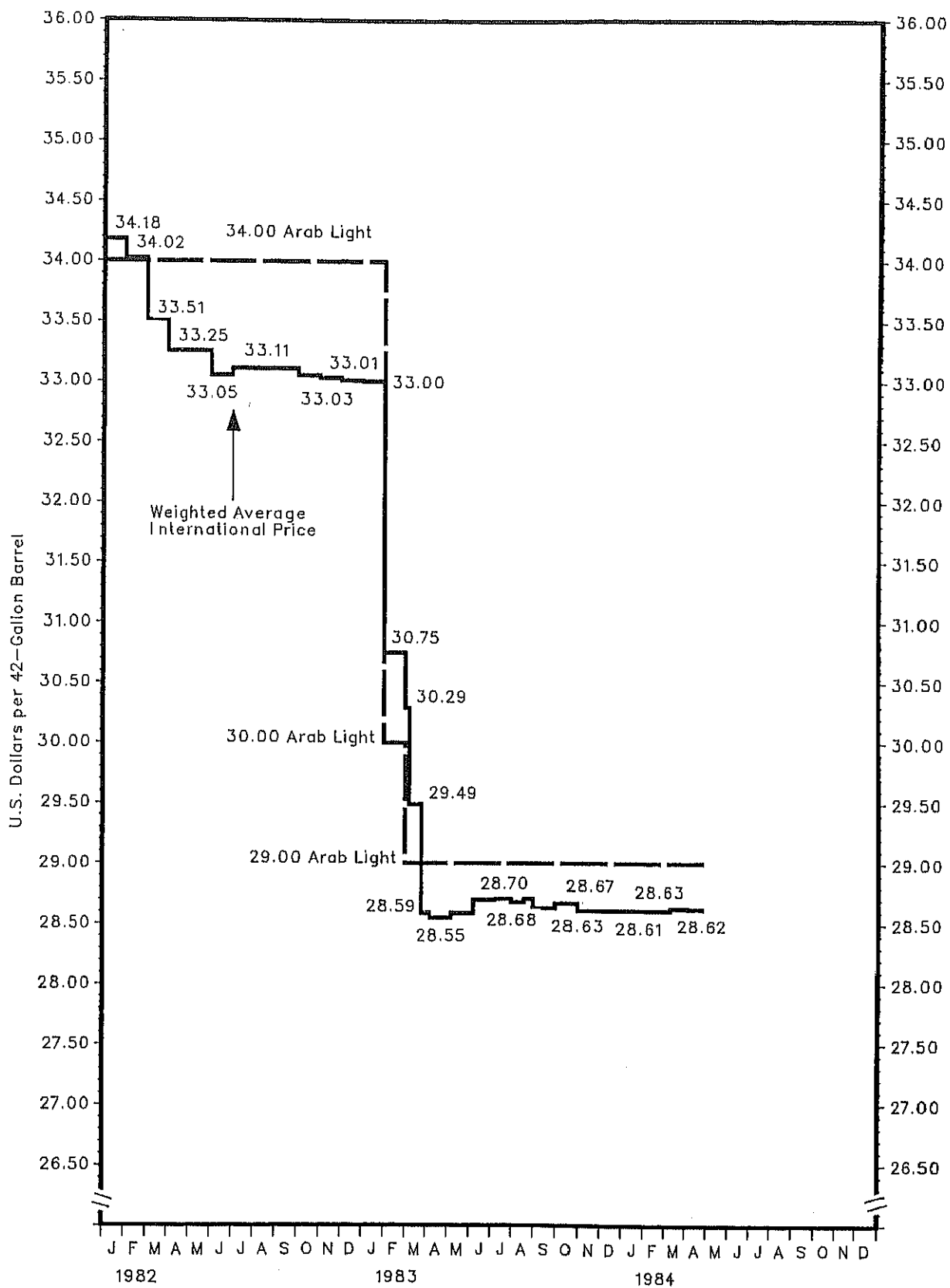
credit.

ivered cost to Northwest Europe.

ices (FOB) weighted by estimated import volume.

ources Section of this publication.

World Crude Oil Prices<sup>1</sup>  
(Dollars per Barrel)



<sup>1</sup> Internationally traded oil only. Average price (FOB) weighted by estimated export volume.

SPOT MARKET PRODUCT PRICES  
(Dollars per Barrel)

		Motor Gasoline		Gasoil/Heating Oil <sup>1</sup>		Residual Fuel Oil <sup>2</sup>	
		Rotterdam (98 Octane)	N.Y. <sup>3</sup> (89 Octane)	Rotterdam (0.5% Sulfur)	N.Y. <sup>4</sup> (0.2% Sulfur)	Rotterdam (1% Sulfur)	N.Y. <sup>3</sup> (1% Sulfur)
1983	Apr 8	34.70	36.77	32.51	32.66	25.30	26.00
	15	36.69	37.09	33.58	34.65	25.90	26.50
	22	35.58	37.40	33.78	35.28	25.60	26.75
	29	36.75	37.19	33.51	35.49	25.98	26.75
	May 6	36.28	36.88	32.51	34.54	25.98	27.00
	13	34.94	36.67	31.57	33.18	25.30	26.50
	20	35.35	36.98	31.97	33.28	25.75	27.00
	27	35.58	37.19	32.24	33.50	26.13	27.25
	Jun 3	35.76	37.19	32.10	33.28	25.98	27.50
	10	35.81	37.32	33.24	33.39	25.98	27.60
	17	36.87	37.84	33.38	34.12	25.83	28.05
	24	37.87	37.84	33.51	34.23	26.80	28.50
	Jul 1	37.16	37.42	32.84	34.02	26.28	28.35
	8	Not available.					
	15	36.81	36.62	33.18	34.23	28.00	29.00
	22	36.28	36.63	33.18	34.23	28.23	28.75
	29	36.05	36.52	33.04	34.34	28.15	28.75
	Aug 5	36.22	36.64	33.71	35.18	28.53	28.75
	12	36.40	36.52	34.18	35.28	28.68	29.00
	19	36.52	36.52	34.79	35.28	28.53	29.00
	26	36.34	36.73	34.65	35.28	28.38	29.35
	Sep 2	35.87	36.29	34.18	35.07	28.08	29.25
	9	34.47	35.99	33.58	34.65	27.33	28.75
	16	34.35	35.78	33.44	34.86	26.95	28.75
	23	34.41	35.87	33.85	35.01	26.95	28.75
	30	33.24	34.92	33.71	34.02	27.63	28.75
	Oct 7	33.41	34.29	32.51	33.50	27.40	28.00
	14	33.59	34.82	33.11	34.02	27.48	27.95
	21	34.17	34.40	34.05	33.28	27.78	27.90
	28	34.41	33.94	33.98	33.18	27.78	28.10
	Nov 4	34.70	34.65	34.25	34.65	28.08	28.25
	11	35.05	34.25	34.65	34.12	27.85	28.75
	18	33.94	33.54	32.91	33.28	27.33	28.50
	25	33.59	33.08	32.84	33.18	26.43	28.25
	Dec 2	33.06	32.66	33.58	32.97	26.65	28.20
	9	32.94	31.90	33.11	33.08	27.10	28.25
	16	31.95	30.91	33.11	32.66	27.55	28.50
	23	31.65	30.98	33.11	33.70	27.55	28.50
	30	Not available.					
1984	Jan 6	30.72	32.57	33.78	35.28	28.15	29.75
	13	30.25	32.34	33.85	36.12	27.78	30.15
	20	31.65	34.17	34.38	41.79	28.00	30.25
	27	32.24	33.43	35.12	44.10	27.85	31.25
	Feb 3	31.48	34.69	34.79	42.42	28.23	31.50
	10	31.48	33.64	33.51	38.01	28.60	31.00
	17	31.48	33.85	33.04	34.23	28.53	30.75
	24	31.89	33.18	33.24	32.55	28.53	30.25
	Mar 2	33.59	34.86	33.71	33.08	28.53	29.25
	9	33.47	35.01	33.98	32.86	28.30	29.25
	16	33.82	34.69	34.38	32.55	28.30	29.00
	23	33.29	34.38	34.12	33.50	28.15	28.75
	30	32.77	35.87	34.12	34.76	28.00	28.75
	Apr 6	33.06	35.26	34.12	35.91	28.60	29.25
	13	33.06	35.15	33.31	36.02	28.15	29.40
	20	32.53	34.08	32.91	36.12	27.85	29.40
	27	32.36	33.73	32.84	36.02	27.85	29.40

1 Refers to No. 2 Heating Oil.

2 Refers to No. 6 Oil.

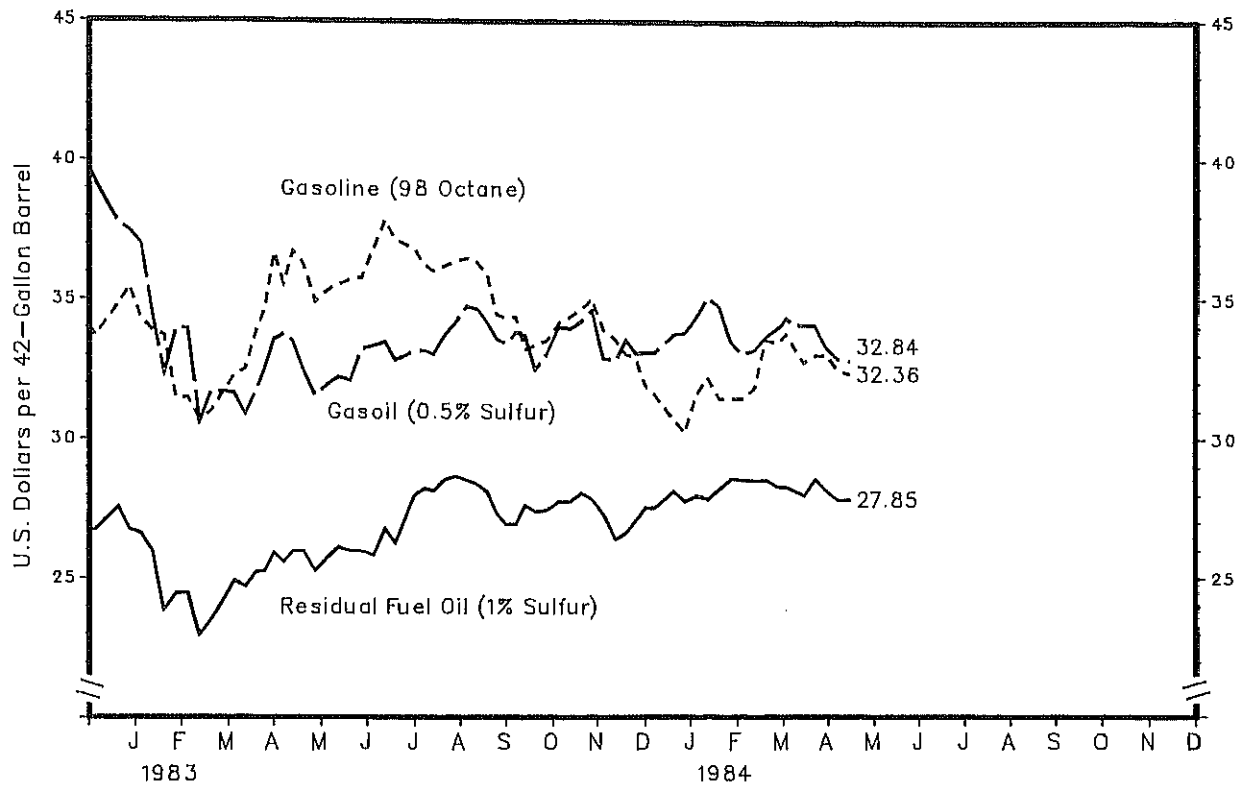
3 East Coast Cargoes.

4 New York Harbor Reseller Barge Prices.

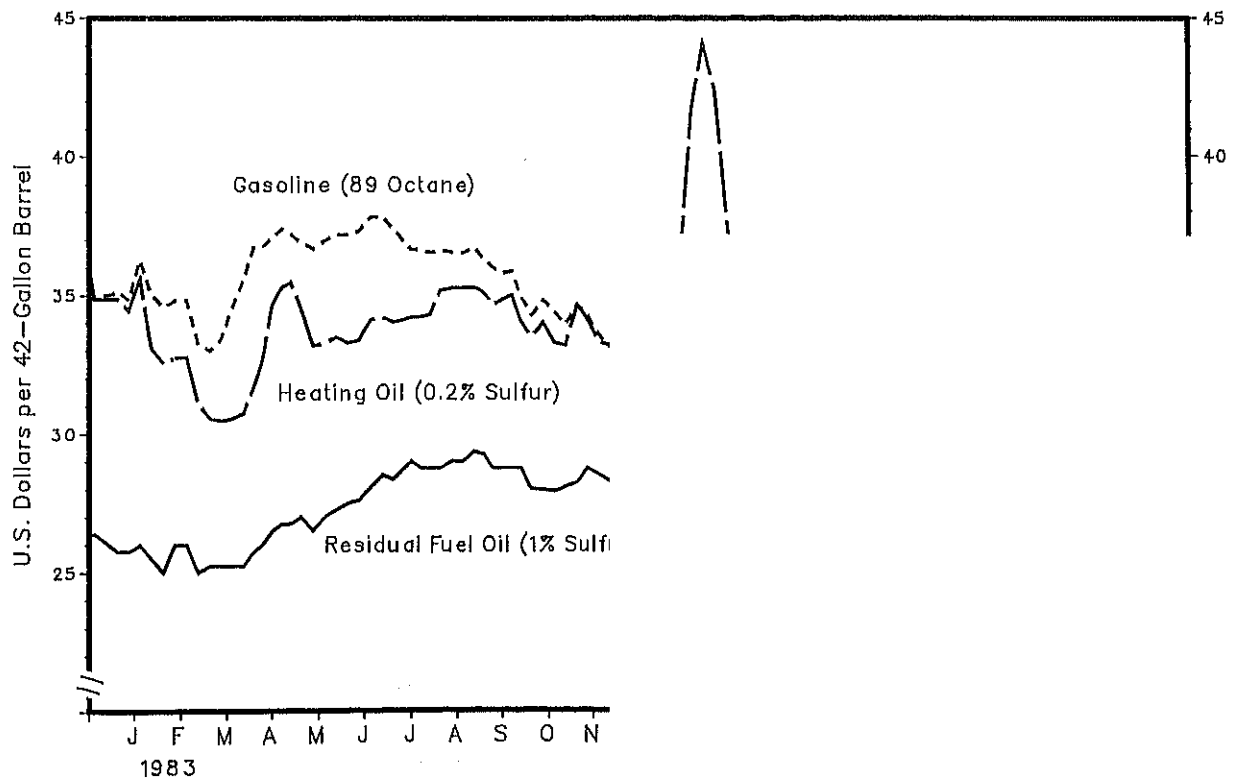
Source: See Sources Section of this publication.

## Spot Market Product Prices

Rotterdam Market  
(Dollars per Barrel)



New York Market  
(Dollars per Barrel)



Source: See Sources Section of this publication.

**WEATHER SUMMARY**  
**(Population Weighted Heating Degree Days<sup>1</sup>)**

Weather data reported in the Weekly Petroleum Status Report are now taken directly from a computerized system implemented by the National Oceanic and Atmospheric Administration, Department of Commerce.

The weather for the nation, as measured by population-weighted heating degree-days from July 1, 1983 through April 28, 1984, has been 3 percent cooler than normal and 10 percent cooler than last year.

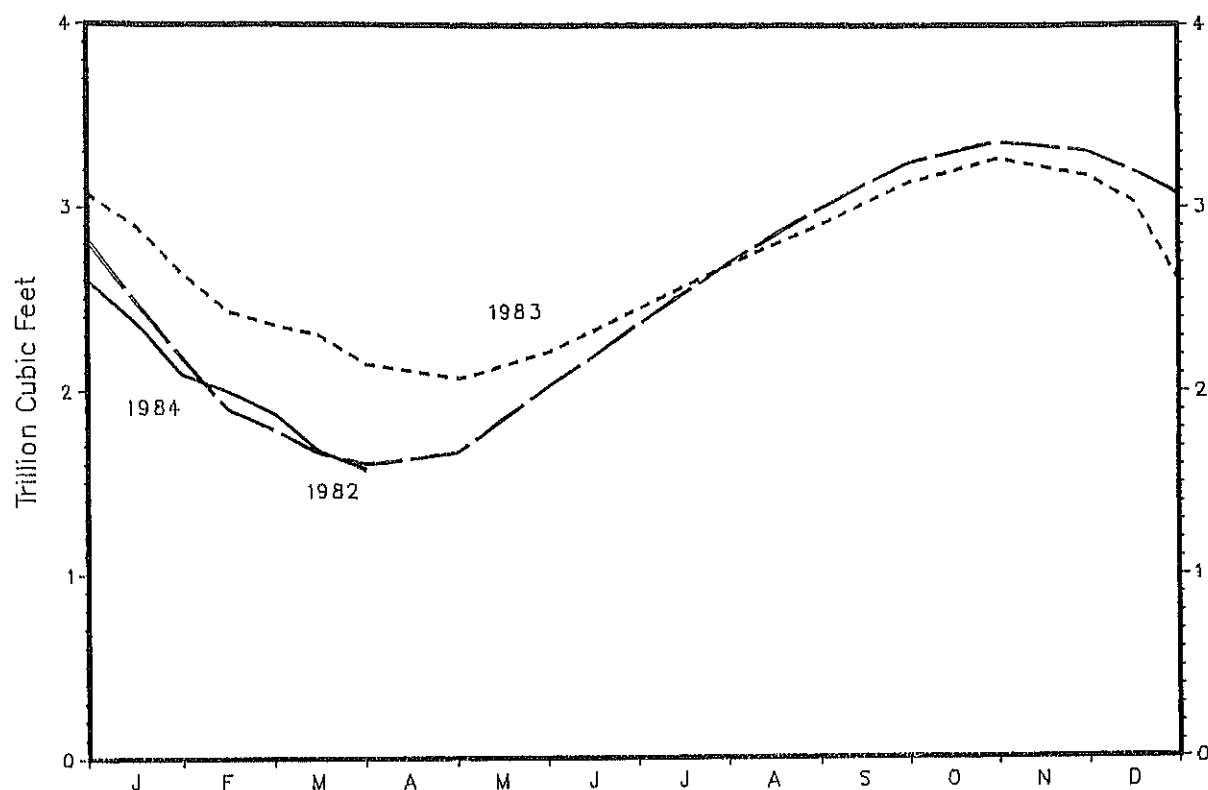
**U.S. TOTAL HEATING DEGREE DAYS (Population Weighted) AND BY CITY**

	1983-1984 This year	1982-1983 Last year	Normal	Percent Change	
				This year vs. Last year	This year vs. Normal
July 1 - June 30		4,500	4,694	--	--
July 1 - April 28	4,664	4,221	4,527	10	3
<b>Cities</b>					
Albuquerque	4,217	4,536	4,327	-7	-3
Amarillo	4,693	4,531	4,131	4	14
Asheville	4,399	4,078	4,150	8	6
Atlanta	3,253	3,002	2,978	8	9
Billings	6,359	5,775	6,770	10	-6
Boise	6,039	5,184	5,455	16	11
Boston	5,515	4,911	5,339	12	3
Buffalo	6,566	5,768	6,446	14	2
Cheyenne	7,339	6,742	6,757	9	9
Chicago	6,815	5,843	6,182	17	10
Cincinnati	5,648	4,465	5,085	26	11
Cleveland	6,339	5,065	5,901	25	7
Columbia, SC	2,916	2,820	2,606	3	12
Denver	6,279	5,910	5,674	6	11
Des Moines	6,651	5,691	6,373	17	4
Detroit	6,603	5,583	6,280	18	5
Fargo	8,633	7,980	8,934	8	-3
Hartford	6,085	5,496	5,946	11	2
Houston	1,847	1,674	1,549	10	19
Jacksonville	1,557	1,538	1,407	1	11
Kansas City	5,825	5,093	5,152	14	13
Las Vegas	2,094	2,502	2,508	-16	-17
Los Angeles	967	1,160	1,440	-17	-33
Memphis	3,383	2,977	3,180	14	6
Minneapolis	186	139	198	34	-6
Mobile	6,851	6,130	6,899	12	-1
San Antonio	7,916	6,887	7,714	15	3
San Diego	2,393	2,135	2,266	12	6
San Francisco	4,958	4,363	4,757	14	4
Seattle	4,118	3,601	3,690	14	12
St. Louis	6,804	6,015	6,040	13	13
Tampa	5,162	4,459	4,813	16	7
Washington, DC	787	1,056	1,442	-25	-45
Wichita	5,979	5,141	5,710	16	5
Yonkers	6,768	6,358	6,999	6	-3
Other cities	5,441	4,959	5,626	10	-3
U.S. Total	3,735	3,405	3,475	10	7
U.S. Total	4,232	3,512	3,891	21	9
U.S. Total	5,136	4,415	4,811	16	7
U.S. Total	4,001	4,007	4,493	0	-11
U.S. Total	5,580	5,293	5,518	5	1
U.S. Total	1,946	2,629	2,787	-26	-30
U.S. Total	4,282	3,999	4,626	7	-7
U.S. Total	2,733	2,456	2,259	11	21
U.S. Total	4,174	3,650	4,050	14	3

Heating degree-days are calculated from the mean daily temperature at a sampling station above a base temperature equal to 65 degrees Fahrenheit. Heating degree-days are deviations of the mean daily temperature below 65 degrees Fahrenheit. If a weather station recorded a mean daily temperature of 78 degrees, cooling degree-days would be 13 and no heating degree-days. A weather station recording a mean daily temperature of 40 degrees would report 25 heating degree-days and no cooling degree-days.



NATURAL GAS IN UNDERGROUND STORAGE  
(Trillion Cubic Feet)



Working Gas<sup>1</sup>

	1982	1983	1984
January 15	2.492	2.902	2.381
January 31	2.182	2.644	2.089
February 15	1.900	2.433	1.997
February 28	1.787	2.356	1.877
March 15	1.661	2.305	1.671
March 31	1.604	2.148	1.572
April 30	1.676	2.074	
May 31	2.034	2.222	
June 30	2.369	2.454	
July 31	2.704	2.695	
August 31	2.998	2.908	
September 30	3.251	3.141	
October 31	3.364	3.269	
November 30	3.309	3.174	
December 15	3.197	3.028	
December 31	3.071	2.596	

<sup>1</sup> Working Gas: Gas available for withdrawal.  
Source: See Sources Section of this publication.

## Appendix A

### EIA WEEKLY DATA: SURVEY DESIGN AND ESTIMATION METHODS

The Weekly Petroleum Reporting System (WPRS) comprises six surveys: the "Weekly Refinery Report" (EIA-800); the "Weekly Bulk Terminal Report" (EIA-801); the "Weekly Product Pipeline Report" (EIA-802); the "Weekly Crude Oil Stocks Report" (EIA-803); the "Weekly Imports Report" (EIA-804); and the "Weekly Shipments from Puerto Rico to the United States Report" (EIA-805). The EIA weekly reporting system, as part of the Petroleum Supply Reporting System, was designed to collect data similar to those collected monthly. In the WPRS, selected petroleum companies report weekly data to EIA on crude oil and petroleum product stocks, refinery inputs and production, and crude oil and petroleum product imports. On the Forms EIA-800 through EIA-803, companies report data on a custody basis. On the Form EIA-804 and EIA-805, the importer of record reports each shipment entering the United States. Current weekly data and the most recent monthly data are used to estimate the published weekly totals.

#### Sample Frame

The sample of companies that report weekly in the WPRS was selected from the universe of companies that report monthly. All sampled companies report data only for facilities in the 50 States and the District of Columbia. The EIA-800 sample frame includes all petroleum refineries in the United States and its territories, industrial facilities that have crude oil distillation capacity and produce some refined petroleum products, and bulk terminals that blend motor gasoline. The EIA-801 sample frame includes all bulk terminal facilities in the United States and its territories that have total bulk storage capacity of 50,000 barrels or more, or that receive petroleum products by tanker, barge, or pipeline. The EIA-802 sample frame includes all petroleum product pipeline companies in the United States and its territories that transport refined petroleum products, including interstate, intrastate, and intracompany pipeline movements. Pipeline companies that transport only natural gas liquids are not included in the EIA-802 frame. Only those pipeline companies which transport products covered in the weekly survey are included. The EIA-803 sample frame consists of all companies which carry or store crude oil of 1,000 barrels or more. Included are gathering and trunk pipeline companies (including interstate, intrastate and intracompany pipelines), crude oil producers, terminal operators, storers of crude oil, and companies transporting Alaskan crude oil by water. The EIA-804 sample frame includes all importers of record of crude oil and petroleum products into the United States. The EIA-805 sample frame includes all shippers of petroleum products into the United States from Puerto Rico.

#### Sampling

The sampling procedure used for the weekly system is the cut-off method. In the cut-off method, companies are ranked from largest to smallest on the basis of the quantities reported during some previous period. Companies are chosen for the sample beginning with the largest and adding companies until the total sample covers about 90 percent of the total for each item and each geographic region for which weekly data are published. The EIA-805 is a census of all importers of petroleum products from Puerto Rico.

	Refiners (Refineries)	Bulk Terminals	Product Pipelines	Crude Oil Stock Holders	Importers	Shippers From PR
Weekly Form	EIA-800	EIA-801	EIA-802	EIA-803	EIA-804	EIA-805
Monthly Frame Size	152(274)	319	89	180	1208	3
Weekly Sample Size	60(160)	82	47	87	62	3

#### Collection Methods

Data are collected by mail, mailgram, telephone, Telex, and Telefax on a weekly basis. All canvassed firms must on the Monday following the close of the report week, 7 a.m. Friday. During the processing actions of the prior week's data are also entered.

#### Estimation and Imputation

s have been checked and entered into the weekly data base, explicit imputation is done not yet responded. The imputed values are exponentially smoothed means of recent weekly specific company. The imputed values are treated like reported values in the estimation as ratio estimates of the weekly totals. First, the current week's data for a given unies in a geographic region are summed. (Call this weekly sum,  $W_t$ ). Next, the most the product reported by those same companies are summed. (Call this monthly sum,  $M_s$ ). im of most recent month's data for the product as reported by all companies. Then, the mate for that product for all companies,  $W_t$ , is given by:

$$W_t = \frac{M_t}{M_s} \cdot W_s$$

ally to estimate total weekly inputs to refineries and production. To estimate stocks ceding procedure is followed separately for refineries, bulk terminals, and e formed by summing over establishment types. Shipments from Puerto Rico are ion purposes.

variable on a company-by-company basis or a week-by-week basis. Therefore, an as been developed. The estimate of total weekly imports is the product of the the weekly reported values and imputed values. Imports of other oils include an r unlicensed products because of coverage differences between the monthly imports

### Response Rates

The response rate as of the day after the filing deadline is about 80 percent for the EIA-800; 75 percent for the EIA-801; 95 percent for the EIA-802; 80 percent for the EIA-803; greater than 95 percent for the EIA-804 and 100 percent for the EIA-805. However, more forms are received the next day, bringing the final response rates up. Late respondents are contacted by telephone. Nearly all of the major companies report on time. The nonresponse rate for the published estimates is usually between 2 percent and 5 percent.

## Appendix B

### INTERPRETATION AND DERIVATION OF AVERAGE INVENTORY LEVELS

The national inventory (stocks) graphs for total petroleum products, crude oil, motor gasoline, distillate fuel oil, and residual fuel oil in this publication include features to assist in comparing current inventory levels with past inventory levels and with judgements of critical levels. Methods used in developing the average inventory levels and minimum operating levels are described below.

#### Average Inventory Levels

The charts displaying inventory levels of crude oil and petroleum products (p.7), crude oil (p.7), motor gasoline (p.9), distillate fuel oil (p.11) and residual fuel oil (p.13) provide the reader with actual inventory data compared to an "average range" from the most recent 3-year period running from January through December or from July through June. The ranges are updated every six months in April and October. The 3-year period is adjusted by dropping the oldest 6 months and including the most recent 6 months. The ranges also reflect seasonal variation determined from a longer time period. The seasonal factors, which determine the shape of the upper and lower curves, are updated annually in October, using the most recent year's final monthly data.

The monthly seasonal factors are estimated by means of a seasonal adjustment technique developed at the Bureau of Census (Census X-11). The seasonal factors are assumed to be stable (i.e., unchanging from year to year) and additive (i.e., the series is deseasonalized by subtracting the seasonal factor for the appropriate month from the reported inventory levels). The intent of deseasonalization is to remove only annual variation from the data. Thus, deseasonalized series would contain the same trends, cyclical components, and irregularities as the original data. The seasonal factors for total petroleum (crude and products), crude oil, distillate fuel oil, and residual fuel oil were derived using monthly data from 1977-1983. In 1977, monthly stock levels of motor gasoline stayed at the same high level for the entire year. Since there was virtually no seasonal behavior in motor gasoline stocks that year, 1977 was not used in the determination of seasonal patterns for motor gasoline stocks.

After seasonal factors are derived, data from the most recent 3-year period (January-December or July-June) are deseasonalized. The average of the deseasonalized 36-month series determines the midpoint of the deseasonalized average band. The standard deviation of the deseasonalized 36-months is calculated adjusting for extreme data points. The upper curve of the "average range" is defined as the average plus the seasonal factors plus the standard deviation. The lower curve is defined as the average plus the seasonal factors minus the standard deviation. Thus, the width of the "average range" is twice the standard deviation. The values of the upper and lower curves are presented in the table below.

Values of Average Ranges in Inventory Graphs  
(Millions of Barrels)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Lower Range												
Total Petroleum	1094.9	1049.4	1045.0	1050.3	1062.9	1076.1	1103.2	1120.0	1141.6	1147.9	1150.8	1114.8
Crude Oil	346.0	344.4	351.7	355.5	352.4	352.2	350.6	342.9	342.4	350.5	349.8	340.0
Motor Gasoline	243.6	246.4	244.0	234.6	225.1	220.1	220.1	217.4	218.2	213.0	220.1	226.7
Distillate Fuel Oil	130.6	101.4	89.8	88.6	97.7	112.2	133.2	153.8	170.1	175.1	174.8	156.9
Residual Fuel Oil	53.7	45.4	45.2	45.4	50.1	48.0	50.1	51.2	56.1	59.2	59.9	59.3
Upper Range												
Total Petroleum	1246.2	1200.7	1196.3	1201.6	1214.2	1227.4	1254.5	1271.3	1292.9	1299.2	1302.1	1266.1
Crude Oil	372.5	370.9	378.2	381.9	378.8	378.7	377.1	369.3	368.9	377.0	376.3	366.4
Motor Gasoline	267.8	270.7	268.2	258.8	249.4	244.4	244.4	241.6	242.4	237.2	244.4	251.0
Distillate Fuel Oil	181.0	151.8	140.2	139.0	148.1	162.6	183.6	204.2	220.5	225.5	225.2	207.3
Residual Fuel Oil	75.3	67.0	66.8	67.0	71.7	69.6	71.7	72.8	77.7	80.8	81.5	80.9

#### Minimum Operating Inventories

Minimum Operating Inventory" (MOI) on the stocks graphs for crude oil, motor gasoline, and residual fuel oil represent estimates of those inventory levels made by the National Petroleum Council and published in November 1983 in "Petroleum Inventories and Storage Capacity -- An NPC Defines the MOI as the inventory level below which operating problems and shortages are a defined distribution system. The NPC report presents the findings of a study which was conducted by the Committee on Petroleum Inventories and Storage Capacity. MOI estimates presented in the report are based on the consensus through a decision-making process that relied on the judgement of the committee members, their operating experience, on historical inventory trends, and on the results of a study to provide primary inventory data to the Energy Information Administration.

Crude oil -- 285 million barrels; motor gasoline -- 200 million barrels; distillate fuel oil -- 40 million barrels.

The NPC did not develop a minimum operating inventory level for total petroleum stocks. The line labeled "observed minimum" on the "Stocks of Crude Oil and Petroleum Products, U.S. Total" graph is the lowest inventory level observed during the same 3-year base period that was used in the derivation of the average inventory levels shown on the graph.

## Appendix C

### PROJECTION OF PRODUCT SUPPLIED FROM THE FEBRUARY 1984 SHORT-TERM ENERGY OUTLOOK

The projections of "high" and "low" total petroleum demand, shown in the WPSR as total product supplied, are from the Office of Energy Markets and End Use, Short-Term Energy Outlook (Outlook), February 1984.

The three forecast cases presented in the Outlook 1984 through mid 1985 are based on different assumptions about the growth of the U.S. economy and the associated price of imported crude oil to U.S. refiners. In the high economic growth case, it is assumed that the price of imported crude oil falls to \$27.62 the first quarter of 1984 and then falls to \$25.00 per barrel in the second quarter, staying at this level through the first and second quarters of 1985. In the base case, it is assumed the average cost for imported crude to U.S. refiners remains at \$29.00 per barrel through the entire forecast period. In the low economic growth case, it is assumed that imported crude oil prices rise at about twice the U.S. rate of inflation through the forecast period.

The "high-demand" case shown in the figure is formed by adding the high economic growth forecast of total demand to the square root of the sum of the squares of the increases in demand that result from the following changes in key variables: (1) a 10-percent increase in heating degree-days over the base case in the first and fourth quarters (heating season) and (2) a 15-percent increase in cooling degree-days over the base case in the second and third quarters. The "low demand" case is formed by subtracting from the low economic growth forecast, the square root of the sum of the squared decreases in demand resulting from preliminary data adjustment plus decreases from the base case assumptions for heating degree-days and cooling degree-days that are equal in magnitude (but opposite in sign) to the changes in the "high demand" case.

For detailed information on the forecast, please refer to the published report, Short-Term Energy Outlook, February 1984.

Copies of the report are available from:

National Energy Information Center  
Room 1F-048, Forrestal Building  
1000 Independence Avenue, S.W.  
Washington, D.C. 20585  
Telephone 202-252-8800

## Appendix D

### CHANGES IN WEEKLY PETROLEUM STATUS REPORT SERIES

Some Weekly Petroleum Status Report (WPSR) data series presented for 1983 and 1984 are different from 1982 WPSR data series. The differences, which are discussed below, are the result of a change in estimation methodology and changes in the reporting frame.

#### Change in Methodology

Beginning in 1983, reports of crude oil used as fuel on leases are treated as reports of crude oil product supplied, a new product supplied category. Before 1983, crude oil used in this fashion was reported as a use of distillate fuel oil or residual fuel oil and was included in the respective product supplied calculations. The monthly series for 1982 shown on p. 16 are the quantities originally calculated and published including crude oil used as fuel. In 1982, the quantities of crude oil used directly in the distillate fuel oil product supplied and residual fuel oil product supplied calculations averaged 10 thousand barrels per day and 48 thousand barrels per day, respectively.

#### Change in Stock Basis

The list of operators of bulk terminals, pipelines, and crude stock holders required to report each month their crude oil and petroleum product stocks was updated in a regular review of the petroleum supply reporting frame during 1982. (See the article in Petroleum Supply Monthly, March 1983 for details.) This expansion was first incorporated in monthly data published for January 1983. The new list of operators was also used to select new samples for EIA Forms 801 (bulk terminals), 802 (pipelines), and 803 (crude stock holders) of the weekly petroleum reporting system. The new weekly sample was used for estimation beginning with the week ending April 1, 1983. The table below shows the new-basis stock levels for December 31, 1982 which can be compared with the old frame stock levels shown on the respective pages of the WPSR. The new-basis stocks of crude oil and petroleum products, including the Strategic Petroleum Reserve, are 2.2 percent greater than the old basis stocks.

New Basis Stock Levels for Crude Oil and Petroleum Products  
December 31, 1982

	Percent Increase	U.S. Total	PADD 1	PADD 2	PADD 3 (Thousand Barrels)	PADD 4	PADD 5
Crude Oil	0.0 <sup>1</sup>	643,871	17,550	78,556	453,697	13,491	80,577
Total Motor Gasoline	3.8	244,279	69,397	67,135	68,016	8,559	31,172
Finished Gasoline	4.1	202,537	64,116	57,903	51,182	6,086	23,250
Blending Components	2.0	41,742	5,281	9,232	16,834	2,473	7,922
Naphtha-type Jet Fuel	26.9	7,189	1,384	1,310	2,367	349	1,779
Kerosene-type Jet Fuel	2.6	32,001	9,626	7,310	9,004	638	5,423
Distillate Fuel Oil	3.9	185,579	84,681	48,221	34,921	4,051	13,705
Residual Fuel Oils	3.1	68,229	35,686	5,383	16,698	634	9,828
Unfinished Oils	0.0	105,277	13,656	17,784	46,209	2,686	24,942
Other Oils	7.1	175,592	22,073	49,714	90,142	3,757	9,906
Total Oils	2.2	1,462,017	254,053	275,413	721,054	34,165	177,332

<sup>1</sup> Calculated including stocks of crude oil in Strategic Petroleum Reserve (293,827 thousand barrels on December 31, 1982).

Source: See Sources Section of this publication.

## Appendix E

### CALCULATION OF WORLD OIL PRICES

The weighted average international price of oil, shown in the "Highlights" on page 1 and on page 18, is an average calculated using specific crude oil prices weighted by the estimated crude oil export volume for each oil-producing country. To develop the table shown on page 18, a list of major oil producing/exporting countries was chosen. For each country, the official selling price of one or more representative crude oils was determined by investigating a number of industry publications (i.e., "Oil Buyers' Guide", "Platt's Oilgram Price Report", "Petroleum Intelligence Weekly", and "Europe Oil Prices") and by contacting oil market analysts.

Then, the appropriate crude oil volumes to be used as weighting factors for each country were determined. These volumes are estimates based on a number of sources which provide data on production, consumption, and exports for these countries. Export volumes for a number of smaller producing/exporting countries, not listed in the table, are included in the weighting factors. After the export volumes had been determined, simple mathematical weighted averages were calculated to arrive at the "Total OPEC," "Total Non-OPEC," and "Total World" prices.

The average United States (FOB) import price is derived by the same basic procedure as the world oil price, that is, taking the representative official crude oil price of a specific crude oil from a particular country and weighting this price by a certain volume of crude oil. In this case, the weighting factors are the volumes of crude oil imported into the U.S. from pertinent countries. Import volumes from a number of smaller producing/exporting countries, not listed in the table, are included in the weighting factors.

Both the import and export volumes are preliminary. Due to their origin, these estimates cannot be fully verified. These volumes are updated monthly, or more frequently when changes in oil market conditions make updating appropriate.

## GLOSSARY

- o **Barrel.** A volumetric unit of measure for crude oil and petroleum products equivalent to 42 U.S. gallons.
- o **Crude Oil.** A mixture of hydrocarbons that existed in liquid phase in underground reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities. Lease condensate and drips are included but topped crude oil (residual) and other unfinished oils are excluded.
- o **Crude Oil Input.** The total crude oil put into processing units at refineries.
- o **Distillate Fuel Oils.** Includes No. 1, No. 2, and No. 4 fuel oils, and No. 1, No. 2, and No. 4 diesel fuels. These are light fuel oils used primarily for home heating, as a diesel engine fuel (including railroad engine fuel and fuel for agricultural machinery), and for electric power generation.
- o **Gross Inputs.** The crude oil, unfinished oils, and natural gas plant liquids put into distillation units.
- o **Imports.** Unless otherwise specified in this report, refers to gross imports. Imports of minor products ("other oils") include aviation gasoline, kerosene, unfinished oils, liquefied petroleum gases, plant condensate, petrochemical feedstocks, lube oils, waxes, special naphthas, coke, asphalt, gasoline blending components, and other miscellaneous oils.
- o **Jet Fuel.** Includes kerosene-type jet fuel and naphtha-type jet fuel. Kerosene-type jet fuel is a kerosene quality product used primarily for commercial turbojet and turboprop aircraft engines. Naphtha-type jet fuel is a fuel in the heavy naphthas range used primarily for military turbojet and turboprop aircraft engines.
- o **Motor Gasoline.** Finished leaded gasoline, finished unleaded gasoline, and blending components in the gasoline range. Production and imports data represent finished leaded gasoline and finished unleaded gasoline. Stocks data consist of the two types of finished gasoline and blending components. Stock change used in the calculation of motor gasoline product supplied is the change in finished motor gasoline stocks. Imports of motor gasoline blending components are contained in other oils imports.
- o **Operable Capacity.** The maximum amount of input that can be processed by a crude oil distillation unit in a 24-hour period, making allowances for processing limitations due to types and grades of inputs, limitations of downstream facilities, scheduled and unscheduled downtimes, and environmental constraints. Includes any shutdown capacity that could be placed in operation within 90 days.
- o **Petroleum Administration for Defense Districts (PADD).** Five geographical areas into which the nation was divided by the Petroleum Administration for Defense for purposes of administration. These PADDs include the states listed below:
  - PADD 1: Connecticut, Delaware, District of Columbia, Florida, Georgia, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, North Carolina, Pennsylvania, Rhode Island, South Carolina, Vermont, Virginia, and West Virginia.
  - PADD 2: Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, Oklahoma, South Dakota, Tennessee, and Wisconsin.
  - PADD 3: Alabama, Arkansas, Louisiana, Mississippi, New Mexico and Texas.
  - PADD 4: Colorado, Idaho, Montana, Utah, and Wyoming.
  - PADD 5: Alaska, Arizona, California, Hawaii, Nevada, Oregon, and Washington.
- o **Product Supplied.** A value calculated for specific products which is equal to domestic production plus net imports (imports less exports), less the net increase in primary stocks. Total products supplied is calculated as inputs to refineries, plus estimated refinery gains, plus other hydrocarbon input, plus product imports, less product exports, less the net increase in product stocks. Values shown for "Other Oils" product supplied are the difference between total product supplied and product supplied values for specified products. Other oils product supplied incorporates crude oil product supplied and reclassified product adjustment.
- o **Refiner Acquisition Cost of Crude Oil.** The average price paid by refiners for crude oil booked into their refineries in accordance with accounting procedures generally accepted and consistently and historically applied by the refiners concerned. Domestic crude oil is that oil produced in the United States or from the outer continental shelf as defined in 43 USC Section 1131. Imported crude oil is any crude oil which is not domestic oil. The composite is the weighted average price of domestic and imported crude oil. Prices do not include the price of crude oil for the SPR.
- o **Refinery Capacity Utilization.** Ratio of the total amount of crude oil, unfinished oils, and natural gas plant liquids run through crude oil distillation units to the operable capacity of these units. In the period 1979-1982 the refinery capacity utilization for all U.S. refineries ranged between 87 percent and 65 percent. The ratio for an individual refinery may fluctuate much more depending on the type of crude and other raw materials processed, the types of products produced, and the operating conditions of the refinery.



- o **Residual Fuel Oils.** Includes No. 5 and No. 6 fuel oils which are heavy oils used primarily for electric power generation, for industrial and commercial space heating, as a ship fuel, and for various industrial uses.
- o **Retail Motor Gasoline Prices.** Motor gasoline prices calculated each month by the Bureau of Labor Statistics (BLS) in conjunction with the construction of the Consumer Price Index (CPI). These prices are collected in 85 urban areas selected to represent all urban consumers--about 80 percent of the total U.S. population. The service stations are selected initially, and on a replacement basis, in such a way that they represent the purchasing habits of the CPI population. Service stations in the current sample include those providing all types of service (i.e., full-, mini-, and self-service).
- o **Stock Change (Refined Products).** Component of Product Supplied calculation shown on U.S. Petroleum Balance. The product stock change shown on the U.S. Petroleum Balance Sheet for the current 4-week period is calculated in the following way; an average daily stock change is calculated for major refined products (i.e., all actual reported stocks); this stock change is added to an estimate for minor product stock change based on historical monthly data; a daily average stock change for refined product stocks for the 4-week period is then calculated. To calculate minor product stock change, the stock levels shown for other oils in the stock section of the balance sheet are used. These other oils stock levels are derived by: 1) computing an average daily rate of stock change for each month based on monthly data for the past six years; 2) using this daily rate and the minor stock levels from the most recent monthly publication to estimate the minor product stock level for the current period.
- o **Stocks.** For individual products in the WPSR, quantities held at refineries, in pipelines, and at bulk terminals which have a capacity of 50 thousand barrels or more, and in transit thereto. Stocks held by product retailers and resellers, as well as tertiary stocks held at the point of consumption, are excluded. Stocks of individual products held at gas processing plants are excluded from individual product estimates but included in "Other Oils" estimates and "Total."
- o **Unaccounted-for Crude Oil.** A term which appears in U.S. Petroleum Balance Sheet. It reconciles the difference between data (or estimates) about supply and data (or estimates) about disposition. Its value can be positive or negative since it is a balancing term. As it appears in the monthly publications, it reflects the accuracy of the reported data. Because the unaccounted-for crude oil figure reflects the accuracy of reported and estimated figures, one would expect the figure to be larger in balances using preliminary or estimated data and smaller in balances using final data. In fact, the published figures confirm this expectation. In the WPSR, four-week averages for the previous year are interpolated from final monthly data, so that the unaccounted-for crude oil value for the previous year is considerably smaller than that for the current period.
- o **United States.** For the purpose of the report, the 50 states and the District of Columbia. Data for the Virgin Islands, Puerto Rico, and other U.S. territories are not included in the U.S. Totals.

## SOURCES

### Page 4

- o Monthly Data: 1982, EIA, "Petroleum Supply Annual," 1983-1984, EIA, "Petroleum Supply Monthly."
- o Four-Week Averages: Estimates based on EIA weekly data.

### Page 5

- o Monthly Data: 1983-1984, EIA, "Petroleum Supply Monthly."
- o Four-Week Averages: Estimates based on EIA weekly data.

### Page 6

- o Monthly Data: 1982, EIA, "Petroleum Supply Annual," 1983-1984, EIA, "Petroleum Supply Monthly."
- o Week-Ending Stocks: Estimates based on EIA weekly data.

### Page 7

- o Data for Ranges and Seasonal Patterns: 1977-1980, EIA, "Petroleum Statement Annual (Final Summary)," 1981-1982, EIA, "Petroleum Supply Annual."
- o Monthly Data: 1983-1984, EIA, "Petroleum Supply Monthly."
- o Week-Ending Stocks: Estimates based on EIA weekly data.

### Page 8

- o Monthly Data: 1982, EIA, "Petroleum Supply Annual," 1983-1984, EIA, "Petroleum Supply Monthly."
- o Week-Ending Stocks: Estimates based on EIA weekly data.

### Page 9

- o Data for Ranges and Seasonal Patterns 1978-1980, EIA, "Petroleum Statement, Annual (Final Summary)," 1981-1982, EIA, "Petroleum Supply Annual."
- o Monthly Data: 1983-1984, EIA, "Petroleum Supply Monthly."
- o Week-Ending Stocks: Estimates based on EIA weekly data.

### Page 10

- o Monthly Data: 1982, EIA, "Petroleum Supply Annual," 1983-1984, EIA, "Petroleum Supply Monthly."
- o Four-Week Averages: Estimates based on EIA weekly data.

### Page 11

- o Ranges and Seasonal Patterns 1977-1980, EIA, "Petroleum Statement Annual (Final Summary)," 1981-1982, EIA, "Petroleum Supply Annual."
- o Monthly Data: 1983-1984, EIA, "Petroleum Supply Monthly."
- o Week-Ending Stocks: Estimates based on EIA weekly data.

### Page 12

- o Monthly Data: 1982, EIA, "Petroleum Supply Annual," 1983-1984, EIA, "Petroleum Supply Monthly."
- o Four-Week Averages: Estimates based on EIA weekly data.

### Page 13

- o Ranges and Seasonal Patterns 1977-1980, EIA, "Petroleum Statement Annual (Final Summary)," 1981-1982, EIA, "Petroleum Supply Annual."
- o Monthly Data: 1983-1984, EIA, "Petroleum Supply Monthly."
- o Week-Ending Stocks: Estimates based on EIA weekly data.

### Page 14

- o Monthly Data: 1982, EIA, "Petroleum Supply Annual," 1983-1984, EIA, "Petroleum Supply Monthly."
- o Four-Week Averages: Estimates based on EIA weekly data.

### Page 15

- o Monthly Data: 1983-1984, EIA, "Petroleum Supply Monthly."
- o Four-Week Averages: Estimates based on EIA weekly data.

### Page 16

- o Monthly Data: 1982, EIA, "Petroleum Supply Annual," 1983-1984, EIA, "Petroleum Supply Monthly."
- o Four-Week Averages: Estimates based on EIA weekly data.
- o Projections: EIA, Office of Energy Markets and End Use (February 1984).

Refiner Acquisition Cost of Crude Oil: Form EIA-14, "Refiners Monthly Cost Report."  
Retail Gasoline - Bureau of Labor Statistics. See glossary description for "Retail Motor  
Gasoline Prices."  
Residential Heating Oil--1982: Form EIA-9A, "No. 2 Distillate Price Monitoring Report," 1983-1984:  
Forms EIA-782A, "Monthly Petroleum Product Sales Report," and EIA-782B, "Monthly No. 2 Distillate  
Sales Report."

OE, Office of International Affairs, April 30, 1984.  
Att's Oilgram Price Report.  
Petroleum Intelligence Weekly.  
Oil Buyers' Guide.  
Crude Oil Prices.

OE, Office of International Affairs.  
Oil Buyers' Guide, Weekly Oil Market Product Report. Not published weeks of July 4 and December 25.

OE, Office of International Affairs  
Oil Buyers' Guide, Weekly Oil Market Product Report. Not published weeks of July 4 and December 25.

PC-8/EIA-191, "Underground Gas Storage Report."

OE, Office of International Affairs.